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With the Author's Consent?

A

TREATISE ON CHOLERA.

BY

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CHOLERA HOSPITAL, DUBLIN, IN 1832.

“As the rose-tree is composed of the sweetest flowers and the sharpest thorns; as the heavens are sometimes overcast and sometimes fair, alternately tempestuous and serene—so is the life of man intermingled with hopes and fears, with joys and sorrows, with pleasures and pains.”—BURTON.

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MDCCCXLIX.

DEDICATION.

TO

THE REVEREND JOHN BROWNE, LL.D.

PRINCIPAL OF KILKENNY COLLEGE.

MY DEAR DOCTOR,

Accept this Treatise on Cholera as a tributary mite of respect and gratitude, from one who has ever found you a sincere and kind friend. “There is a *friend* that clingeth closer than a *brother*,” saith the wise man—and such I have ever found you.

I have yet another reason for dedicating this Treatise to you—it is as the respected Principal of Kilkenny College.

It was from your predecessor, the Reverend William Baillie, LL.D., now Rector of Clondevaddock, Ramelton, I imbibed any taste for the classics I possess, and which, I am not ashamed to say, I still cultivate. It is often refreshing to the mind, after the wear and tear of daily life, to retire and drink at Helicon’s fount.

At times, too, the recollection of Kilkenny College will bring back to my mind scenes pleasingly sad;

thoughts of occurrences long past, and persons now numbered with the generations gone.

Such recollections often *animate* the mind, just as the departing rays of a setting sun will illumine the clouds previously dark and lowering, even with vivid and gorgeous hues, affording us a bright and beauteous promise that the luminary, though gone, is not *extinct*, but will yet rise again, and cheer us *another* day. I do not wish that you should live and die as you are: I would prefer that in due time, but not too soon, Trinity College should promote you, as it did your predecessor, to one of its livings, and afford you a more congenial field to labour in; acknowledging thereby in each instance, as the fruits of meritorious labour, the Fellows and Scholars added by both to the lists of its calendar, and adjudging a just recompence of reward. At all events, it may be said of Kilkenny College—

“*Erit nulli proprius, sed cedet in usum,
Nunc tibi, nunc alii, quocirca vive, valeque.*”

Your sincere Friend,

THE AUTHOR.

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ADDRESS TO THE PUBLIC.

THE reader is not to expect in this Treatise a well-digested arrangement, a “*rerum lucidus ordo*,”—the peculiar circumstances under which it was written forbid it; the idea was suggested by having accidentally seen, hanging in a hall in Dublin, the “Circular Manifesto” of the Board of Health, dated September 1, 1848. Having cast my eye over its contents, it appeared to me there were objections to some of the suggestions therein given. I accordingly sat down next day, and wrote my address to the Board, which follows next in succession. I was induced, from time to time, to add some notes and annotations: and, as I was subject to many interruptions from ill health and other unavoidable causes, and cholera not yet having reached Dublin, I thought it well to write to Kilkenny for my case-book, and make this, my *début*, as respectable and perfect as possible. Being a constant reader, too, of events passing, and past, I took advantage of every occurrence which bore on the subject, either in the papers, or periodicals, and endeavoured thereby to render this production both useful and entertaining. How far I have succeeded in so

doing must be left to the decision of my arbiters, both professional and non-professional. If I shall have gained the *utile*, I may be well content to lose the *dulce*. That criticism will be busy, I have no doubt; indeed it is the only return an author, however lowly, is certain to receive. To many this is a source of much concern:—

The prospect I open'd, the grove that I rear'd
 Delighted my eyes, till *the critic* appear'd.

PROFESSOR SMYTH.

To *me* it is a matter of perfect indifference. Such “*nigræ succus loliginis*, such *œrugo mera*,” mere *verdi-grease* and *malice*, I value as I should the yelpings of a few *babbling hounds*. That rational objections upon rational grounds should be made, I both expect, and am prepared to answer, as best I can, without being guilty of the charge of a “*petitio principii*,” or, assuming that I describe myself, I may not inaptly quote the following lines:—

“What’s that, which brings contempt upon a book,
 And him, who writes it, though the style be neat,
 The method clear, and argument exact?
 That makes a minister in holy things,
 The joy of many, and the dread of more;
 His name a theme for praise and for reproach?
 What pearl is it that rich men cannot buy,
 That learning is too proud to gather up;
 But which the poor and the despis’d of all
 Seek, and obtain, and often find unsought?
 Tell me—and I will tell thee what is *truth*.”

Yes, truth is to very many most unpalatable, and, to very many more, a perfect stranger. If, for in-

stance, my position be true, that the great writer on the "Diseases of India," Mr. Annesly, assumed a false theory, and from it drew a plausible and fatally deceptive line of practice in the treatment of cholera, how many of Mr. Annesly's friends, how many of those who promulgated his opinions, may I not expect to rise up in judgment against me? Yet such is my firm conviction, and such is the conclusion, I have little doubt, every one of experience in the treatment of cholera has arrived at, though he may hesitate to admit, or publish it. Mr. Annesly, I repeat, assumed that, in Asiatic cholera, the blood receded from the surface of the body, and accumulated upon the internal parts; and that this recession and accumulation, (called, by another name, congestion,) being the cause of all the symptoms in cholera, our object should, and ought to be, "by bleeding, to draw back the blood to the surface, and thereby relieve the internal parts, and thus remove the symptoms indicating this internal accumulation." Such is, in a few words, the whole of Mr. Annesly's theory and practice. No doubt, if we admit the theory, we cannot refuse assent to the practice; but, the theory is *false*, and the practice is *fatal*. This, I regret to say, whilst I consider it my bounden duty to publish it, was fully proved to be the case in Townsend-street Hospital in 1832. We had never before seen, at that time, Asiatic cholera in this country; and, of course, felt ourselves bound to follow the advice of Mr. Annesly, Mr. Bell, &c., who had treated it in India,

and written upon it. What was the result? it invariably either killed, or lowered a patient, previously too low, and whom any physician of common observation would, if left to his own judgment, have stimulated and supported in every possible way. But Messrs. Annesly, Bell, &c., will tell us, had we bled more largely, or earlier in the disease, we would have succeeded, and relieved the congestion. I fling back upon them this delusive and dangerous dogma, by replying, it would be impossible to remove what *never existed*. Those just as competent, nay, I would add, more competent, (not meaning necessarily to include myself,) to decide this point, have examined cholera subjects in my presence and aided by me, and sought diligently for this great congestion, described so graphically by Mr. Annesly, but never were able to find it. But Mr. Annesly asserts, he invariably did find it, and that positive is better than negative evidence. I assert, *he did not find it*, but *imagined* what prejudice prepared him to find — “*Quod volumus, facile credimus;*” or, if he did find it, the cholera of 1832 was not Asiatic cholera; but, as several individuals were present in Townsend-street, who saw Asiatic cholera in India, and pronounced the Dublin disease identical with the Asiatic, even this supposition falls to the ground. Let us hear no more about congestion in Asiatic cholera; we have already heard much too much about it! It has slain its thousands and tens of thousands!

There is no need to invent congestion to account

for the absence of blood in the superficial veins, the previously existing diarrhœa and vomiting fully account for it. The absurd conclusions drawn in other matters of minor moment, but yet of great practical importance, from false theories, I shall illustrate by an extract at once appropriate and instructive, from “Hogg’s Weekly Instructor,” Part X., published December 27, 1845.

“The circulation of water on the globe is one of the most interesting departments of natural science. ‘All rivers return into the sea,’ said the wise man, ‘yet is the sea not full;’ and hence he draws the natural conclusion, that ‘to the places whence they came, thither they return again.’” (I may, myself, here remark, that Homer, though blind, yet, by mental vision, saw this.)

οὐδὲ βαθυρρέϊται μεγα σθένος Ὀκεανοῖο,
ἐξ οὐπερ πάντες ποταμοὶ, καὶ πᾶσα θάλασσα,
καὶ πᾶσαι κρῆναι, καὶ φρεῖατα μακρὰ νάουσιν.

HOMER, lib. 21, 195, κ.τ.λ.

I now proceed with my quotation. “How this is accomplished long remained one of the doubtful questions of science, and whilst some few maintained the sufficiency of the rains to supply *all* the springs and rivers, the greater number asserted the necessity of some underground communication with the sea, by which its waters filtering through the sands, and thus deprived of their saltness, were returned to the surface of the land by capillary fissures in the rocks; the improvement of

physical science showed the impossibility or absurdity of this hypothesis, but so long as it was believed that the rain did not furnish a sufficient supply of moisture for the rivers, this rather added to than diminished the difficulties of the question. And, indeed, on a superficial view, one might well doubt, if the rains could yield all that mass of water which the Rhine or Po, the Thames, the Tweed, or the Tay, not to mention the mightier streams of the Asiatic and American continents are incessantly pouring into the ocean; and some springs, too, seem actually independent of the rains, flowing equally at all seasons, and not failing after the most long-continued droughts. An important step to the resolution of this question was made, when, instead of disputing on the subject, men set themselves about to determine by *experiment* the amount of rain that fell throughout the year in any district, and the quantity of water that rivers actually convey to the sea. The result was very different from what had been expected; and the rains that fell on various river basins were found amply sufficient for this supply. Thus Dalton estimated the average rain over all England as equal to thirty-three inches depth in the year, whereas, that needed to supply the rivers did not exceed thirteen. M. Arago, too, has calculated that the Seine does not convey immediately to the sea more than one-third of the rain that falls in its basin, that is, in the district of country drained by the river, the remaining moisture is all evaporated directly, or consumed in the

processes of vegetation, and thus returned to the atmosphere, whence it originally was derived. There can be no doubt, therefore, that the rain is sufficient to supply all the springs and rivers of a country."

Now, had Mr. Annesly, instead of first forming an hypothesis, or theory, appealed to experiment, and been guided by the results, he would have had no occasion to invent, or pre-suppose internal congestion; he might have accounted for the emptiness of the superficial veins by the pre-existing diarrhœa and vomiting, and he might have learnt the non-existence of internal congestion both by the results of bleeding, and also by the evidence of post-mortem examinations. Having proved the inevitably false, and, in Mr. Annesly's case, fatal conclusions derivable from wrong premises, let us now see the valuable results to mankind emanating from the experimental conclusion of Dalton and Arago, with respect to the true circulation of water on the globe.

"At Grenelle, in the southern suburbs of Paris, is one of those large abattoirs, or slaughter-houses, for which that city is remarkable. For this establishment a plentiful supply of water is required, which the government were advised to procure by means of an Artesian well. None of them had hitherto been carried to a greater depth than 1000 feet, but here it was estimated that the green sand, in which a supply might be expected, was probably 1200 or 1500 feet from the surface. The well was commenced in 1834,

and the bore had at first a diameter of about a foot, and was reduced at various depths, till, at 1300 feet, it was only six inches wide. It penetrated first the sand, clay, and lignite beds of the tertiary formation, and then the upper and lower divisions of the chalk, without success. At last the calculated depth of 1500 feet was reached, with no more favourable result, when the patience of both the Government and public was exhausted, and it was only by the urgent representations of M. Arago that they were persuaded to continue the works. At last his perseverance met with its reward, a copious supply being met with at the depth of 548 metres, or about 1800 feet, English measure. This has a temperature of eighty-two degrees of Fahrenheit, or about thirty degrees above the mean temperature of Paris, and almost twenty above the average of its warmest month. The water is supplied partly at the surface of the ground, and partly at the height of 112 feet above it, a tube being carried directly upwards to this elevation, the column of water being thus nearly two thousand feet long, or twice the height of Arthur's Seat, or, to use a more familiar example, from eighteen to nineteen times the height of the round tower of St. Canice's Cathedral, Kilkenny. The average supply is about 500,000 gallons in the twenty-four hours, but nearly twice as much would be furnished at the surface as at the top of the pipe. The temperature of these springs seems to depend on the internal heat of the earth, as it regularly increases with their depth. Let us con-

template another beneficial result to mankind, which, though prospective, may yet prove invaluable. These Artesian wells may be expected to become more and more general, and, in some cases, to produce great revolutions on the condition of the earth's surface. Thus, it has been supposed that water may be found below many parts of the great African desert, and by wells properly arranged, the means of reclaiming large tracts of that inhospitable wilderness be attained. Should this opinion be realized, should the rain and melted snows of the Atlas mountains be in reality dispersed in subterranean but accessible channels, throughout that vast region, it is almost impossible to conceive the changes which the discovery and use of these fountains might make on the physical and moral condition of that continent. The desert might then be literally made to blossom like the rose, and the barrier that stood in the way being destroyed, Commerce, Civilization, and Christianity flow in refreshing streams over the whole of that benighted land."

"Artesian wells are so designated from the province of Artois in France, where they have been in use from the 12th century. They have been also long known to the Chinese, who employ them in some of the central provinces for procuring salt water, from which they condense the salt by fires of natural gas, which rise from other similar holes. The principles of Artesian wells will be readily understood from the following illustration—Were we to suppose two bowls, one within the other, and the interval between them

full of water, it is evident, that on a hole being pierced in the bottom of the inner one, the water would flow up through it; and, as fluids in connected vessels always stand at the same height, (or, as it is commonly said, seek their own level) were a tube placed in the hole, the water would rise to the same elevation in it, as between the vessels. Valleys, or extensive basins occur, in which the rocks and the water contained in them are disposed in a similar manner. London stands in a basin of tertiary rocks, consisting of beds of sand and clay, nearly horizontal in the centre, but rising up all round to the chalk-hills in Surrey, Hants, Berks, Buckingham, and Hertford: when, therefore, the London clay is perforated to one of the reservoirs of water, it rises sometimes to the surface, at other times from above it. In some places advantage has been taken of the heat of Artesian water for economical purposes; thus, at Erfurt, it is said that £12,000 per annum is procured from a salad-ground, which has a regular high temperature secured to it by such a spring. In Switzerland, also, this warm water has been used to melt the ice, so that water-mills might continue to be used during winter. It has been said that the French government have it in contemplation to sink a well of still greater depth than that of Grenelle, in the Jardin des Plantes, in order to warm the conservatories and menageries."

Such are the beneficial results which accrue to the human race from theories founded upon *experimental* not *false* facts. Had M. Arago been discouraged

when he had bored to the depth of 1500 feet, had he yielded to the clamour and scoffings of the many, ignorant as loud, his name should have gone down as a laughing-stock to posterity, like the man who “began to build,” but “was not able to finish.” Whereas, now, the name of Arago will descend to future generations encircled with immortal laurels, a source of just pride to his children’s children. Well and deservedly may he now exclaim—

“*In freta dum fluvii currunt, dum montibus umbræ,
Lustrabunt convexa, polus dum sidera pascit.
Semper honos, nomenque meum, lauderque manebunt.*”

I extract, once more, from “Hogg’s Instructor,” a few appropriate lines:—

NEVER GIVE UP !

“Never give up! ’tis the secret of glory,
Nothing so wise can philosophy preach;
Think of the names that are famous in story,
Never give up is the lesson they teach.

“How have men compass’d *immortal achievements*,
How have they moulded the world to their will?
’Tis that midst dangers, and woes, and bereavements,
Never give up was the principle still.

“Never give up, though o’erladen with sorrow,
Shake not the yoke—’twill more bitterly gall;
Never give up, for there eometh a morrow
Fraught with delights to compensate all.

Never give up, bear your fate with serenity,
Crouch not ignobly like slaves in the dust;
Life’s a rough passage to realms of amenity,
Dark is the journey, but travel we must.

“ Never give up! it can last but a season,
 Will you, because a cloud bursts on your way,
 Basely surrender your manhood and reason,
 Weeping for griefs that may end in a day.

“ What though the tempest around you be raving,
 Soon you'll have emptied life's rancorous cup;
 Soundly you'll sleep where the willows are waving,
 Thunder won't waken you, Never give up!

“ Never give up! it were impious to dream of it,
 Keen though your anguish be, never forget
 That there are fortunes (O raptures to dream of it)
 Bright and immortal in store for you yet.

“ Ere the night fall, if by virtue a meritor,
 May you not, mourner, in paradise sup;
 Compeer of angels, and Heaven's inheritor,
 Think of your destiny—Never give up!”

I have been told that I should not have addressed this Treatise to any but the professional reader; I certainly am not without precedent in doing as I have done, but, even if I were, I should still be disposed to act in the same way, and this for the following reasons:—Cholera is no ordinary medical ailment, on the contrary, it is, admittedly, a most extraordinary one—a plague decimating the nations of the earth from time to time, and, like the ruthless warrior, leaving desolation and ruin as the only traces of its footsteps. Are we therefore tamely to succumb, and prostrate ourselves as willing victims beneath this monster car of a national Juggernaut? I should think not—I should consider it the bounden duty of every man to bestir himself, and, by a strenuous exercise of every energy with which the Author of his being has en-

dowed him, endeavour successfully to combat this universal foe. How then is this to be done? Is it by waiting until the enemy has broken through our outposts, and gained the very heart of our camp? Certainly not; it is only to be effected by keeping good videttes and a sharp look-out. Medical men are, by their profession and calling, those who should both act as sentinels to gain timely warning of the enemy's approach, and should he, notwithstanding, gain possession of the citadel, hasten to its relief. Now, it so happens, that in cholera there are well-marked symptoms of the enemy's approach, of which if the non-professional man be made timely aware, he may by very simple remedial means ward off the foe, and by the ignorance and consequent neglect of which I have seen many a valuable life sacrificed.

As example is better than precept, I shall mention three or four cases which occurred in my practice in Kilkenny in the year 1833.

1. A most respectable woman, the mother of a large family, was seized with spasms, and sickness of stomach, about 3 A.M. I was called in great haste to visit her about 5 A.M.; her family physician was previously in attendance. I had no occasion to inquire what ailed her. She was sinking fast in cholera: she was dead about 7 A.M., and in her grave by 10 A.M.! Judge of the consternation caused universally throughout the city, when servants announced at breakfast hour, same morning, "that Mrs. —— was after being buried." "Why," exclaimed several, "we

saw her last night on the Canal-walk;" and so they did. Her husband, seeing her very poorly, induced her to take a walk, thinking it would revive her, and not knowing what ailed her, or, even if he did, not knowing that what ailed her was the progress of cholera, which had commenced twenty-four hours before, in the shape of an exhausting diarrhœa.

2. A few days after this a lady, rather advanced in years, sent for me in great haste. I found her sinking fast in cholera. She was dead in about four or five hours. She told me, herself, "she had never been well since she heard of Mrs. ——'s sudden death, and how they had buried her!" *Diarrhœa* had then commenced, and cholera was now terminating. Cholera-phobia, it was pretty evident, was *the contagion* which spread here from the one to the other.

3. I had occasion to enter the establishment of a person, where I found his brother transacting business for him. I remarked the brother's aspect, and suspected what was the matter: without exciting any alarm, I asked him, was he not unwell? He said he was; "that he had been for the last two days annoyed with a diarrhœa, which was still at him, and rather worse." I advised him to go to bed, or, at all events, confine himself to his room, and that I would send him a pill or two to stop the diarrhœa. He did so—I called to see him in about six hours; I found the diarrhœa nearly gone, but he complained of great thirst—I recommended a continuance of mulled port, but not so strong as he had been taking, and a third

pill. I was called up about 12 o'clock the same night, and found diarrhœa returned in full force, and vomiting superadded—his pulse was nearly gone. I inquired what had happened since I last saw him, and had he taken anything to account for all this. He replied, "I may as well tell you the truth; when your back was turned, I felt so thirsty, I sent out for a quart of butter-milk, and soon finished it." This person recovered, but he had a very narrow escape.

4. When visiting a lady whom I had been for some time attending, I met her husband, and remarked to him, that he was not looking well. He said he was not, that he felt very weak from diarrhœa, which had been annoying him for the last day or two. I gave him the same advice as I gave the person above mentioned. He said he would do so, but that he should first go out. I remarked he staggered in his gait from debility as he left the room, and followed him. It was well I did so. I found him in his yard propped against the wall, and fast fainting. I grasped his collar, and, tripping his feet from under him, allowed him to sink down, and lay flat on the ground. He recovered his senses after a while, and was then removed to bed. By close watching he made a good recovery.

I shall only remark, in conclusion, that I used to make it a point to inquire of every one of my patients in Townsend Street, how his or her illness began? and in every case of true cholera, the account invariably was, that a day or two before, sometimes

more, sometimes less, a diarrhœa had set in, which he thought "would do him no harm," that "it would wear itself off," and perhaps he would be "all the better afterwards," that this diarrhœa got gradually "harder and harder," until at last vomiting set in, "and brought him to what he was." This is a very popular error at all times; indeed, very many, even of the better class, labour under a similar delusion; but in cholera times it is a fatal blunder. For numbers, especially those at all advanced in years, or of a naturally weakly, or otherwise impaired constitution, this period of diarrhœa is the one, and the only one in which cholera can be cured; neglect this stage, and allow it to progress until vomiting is superadded, and the pulse has departed from the wrist, and the consequence will be, that either the pulse never will return, or, even if it should, it might as well not; its return will be, at least, delusive—it will never improve; it may continue for a few hours, or even a day or two, stationary, but it will never progress to healthy reaction. The patient may be, comparatively, perfectly at ease—all spasms subdued, diarrhœa controlled, and he imbibing abundance of the most nutritive fluids, but they might as well be poured into an empty barrel—sink he will, and that rather suddenly, too. My conviction is, that cholera is an enemy to be dreaded by the poor and profligate, the ill-fed and the uncleanly, at least principally. The debilitated from any cause will, I am certain, include all its victims. Let but health, cleanliness,

and equanimity, be inscribed on “the door-posts and lintel” of any house, and I’ll venture to affirm “the destroying angel will pass over.” Should such a conservatory contain a plant, which, though in its usual health, is yet naturally tender and delicate, such an individual, if apprehensive, would do well to leave the locality. Never was the maxim more fully established, of

“Obsta principiis, sero medicina paratur
Cum mala per longas valere moras——”*

Here, if anywhere, is the decided advantage of prevention. Omit this, and all is lost. I should be in great hopes, that where so many are receiving both in-door and out-relief, as at present afforded by the poor-law system, cholera will not commit the same ravages as in 1832-3, provided, at the same time, proper medical aid be afforded, and the people apprised of the premonitory symptoms. I think these premonitory symptoms should be publicly placarded in every parish, and also apothecaries’ shops so located, that, at any hour of the day or night, proper medicines, previously sanctioned by competent authority, should be procurable merely upon application. I would also advocate the propriety of having all outdoor relief given in the form of properly-cooked food. The poor have not the means of preparing properly raw material, and even if they had, they won’t do it. They will use it in a half-cooked, and therefore un-

* Oppose beginnings; medicine is procured too late, when maladies have gained head through long delays.

wholesome state, and the consequence will be, that the very food supplied by public funds will, by being maltreated and improperly prepared, become itself the means of exciting a diarrhœa, which, if cholera be in the locality, may ultimately terminate in it. I should say, that two pounds of well-baked white bread would far surpass its equivalent in either oaten or yellow meal; the latter is a very gritty, hard material, very often adulterated with saw-dust, and other even worse things; it requires, even when of a pure sample, to be put in steep for hours before being boiled for use, in order to soften it, and render it digestible, and even then you will perceive particles that require mastication. I have it on the authority of a dispensary medical man, who possesses an extensive field of observation, and in whose judgment I place every confidence, that a great deal of the diarrhœa prevalent in his district was caused by the use of Indian meal, or what is commonly called yellow meal, not properly prepared. How is the poor man, who lives from hand to mouth, to take all these necessary precautions? He can't do it; nay, instead of taking all, he takes none; he's hungry when he applies, he's still more hungry after going and getting, and he's starving, perhaps, by the time the most rapid culinary process may render the food he procures swallowable.

In a district where cholera is prevalent, soft food, such as stirabout, is not fit or proper diet. All nourishment taken, especially by a labouring man, should be, as much as possible, of a dry and astringent

gent character. It is a much safer plan, during such a period, to regulate the digestive organs, if necessary, by a rhubarb pill or two, than use such food as will be likely to produce an opposite condition. Of course, in saying this, I do not mean that ripe fruit and good vegetables should be proscribed, but they ought to be used with due caution, and an especial regard to peculiarities of constitution ; what one may use, not only with impunity, but with benefit, may have proved, by experience, poison to another. From all these considerations, I think it by no means amiss, far from it, that both the professional and non-professional man should be aware of the danger—the extreme danger, of not attending to any, even the least tendency to diarrhœa, or a lax state of the bowels, during cholera times. This diarrhœa is the commencement of cholera, and may be for a day or two the only symptom. This is the time to cure cholera, and this is the time it can be easily cured, provided the patient will confine himself to his room, or, better still, go to bed, and take one of the following pills every three or four hours, or oftener if necessary, until this diarrhœa is perfectly subdued :—

℞ Plumbi acetatis, gr. ij.

Extract opii . . gr. j.

Pulveris capsici, gr. j.

Syrupi zingiberis, q. s.

Ut fiat pilula, tertiâ vel quartâ quâque horâ sumenda, donec quieverit alvus.

Every house and family should be supplied with these pills, or some of a similar tendency. From five

to forty drops of laudanum will often answer the same end, according to the age of the patient, or from a quarter of a grain to two of opium. Every parent should be on the look-out for any lax state of the bowels in any member of his household, children, and boys especially. Neglect this premonitory diarrhœa, and ten to one, at midnight, a cry will be heard—spasms and vomiting will have set in, and then, and not till then, the first alarm will be given and the doctor sent for. In very many instances, the doctor might as well not be sent for at all then—it is too late: in a person much past the prime of life, once cholera arrives at the blue or pulseless state, the physician cannot save him; he may relieve the spasms, &c., by opiates, and prolong the patient's existence even for two or more days; but after four or five days at farthest, the patient will sink suddenly, and be suffocated by effusion into his chest, &c. I am fully aware that, wherever cholera first makes its appearance, cases of an awfully sudden character will occur; the reason of this is, that the weakest and worst constitutions are those first attacked, and the imbibed dose of the *atmospheric something* is too potent; diarrhœa, vomiting, and spasms appear to set in simultaneously, and four or five hours may close the scene. Such occurrences are, however, exceptions to the general rule above stated, and rather prove than invalidate it. With children, or boys, a fourth, or even one-eighth of the above pill, may be given, rubbed into a powder with white sugar.

Mulled Port-wine, or, if necessary, hot brandy-and-water, should be given at intervals, together with the most nutritive, and at the same time the driest food, viz., bread, boiled rice, &c. ; on no account should the patient's strength be allowed in any way to be undermined, or the pulse to depart from his wrist ; frequent rising from bed should be avoided by suitable means, and the physical powers carefully husbanded. The diet should be, as a general rule, that most likely to invigorate the frame, and least apt to disagree with, or derange the stomach or bowels. Fish, especially salmon, is apt to disagree with many, and should be avoided. Wine, or brandy, or old whisky may be used with benefit, if used with due moderation, by those previously in the habit of using them. I see no objection to a moderate use of fruit, if ripe, and vegetables. Should any warning be given, the former should be discontinued, and, for the latter, boiled rice may be substituted.

I think I have now enumerated all the precautions to be taken in cholera times, whenever the warning diarrhœa sounds the first note of alarm. Every individual should endeavour to maintain a due equanimity.* I know nothing more likely to generate

* Captain Richard Clifford, who commanded the *Melville* East Indiaman, related to me, in the year 1832, the following occurrence, which took place on board the *Melville* during his time. The butcher was slaughtering a bullock, and, after disembowelling the animal, he offered to lay a wager that no sailor on board would take the paunch on his shoulders and throw it over the gangway. A *greenhorn*, who was present, and thought that the

cholera than fear or sympathy, I have a thorough disbelief in the contagiousness of cholera; cholera is no more a contagious disease than ague. This every physician of experience in cholera must, or does admit. It is not only supremely ridiculous, but very dangerous, to have the public mind agitated by the newspaper squibs and magazine explosions of physicians or surgeons, who perhaps never witnessed fifty cases, or half the number, of the epidemic. One would be disposed to think, that such individuals were labouring to write themselves into an experience of what they know little, if anything, about. Of course, every attention should be paid by public authorities to prevent the accumulation of filth or nuisances, not because such sources will produce or generate cholera, but because they will deteriorate the general health of the locality; and whatever

whole feat depended on physieal strength, at once took him up, and throwing the paunch across his shoulders, proceeded to accomplish the task. When he was about half way, and numbers looking on, the butcher slipped behind him and drew his knife across the paunch; the contents flowed on all sides over the unfortunate *greenhorn*, and besmeared him from head to foot, clothes and all. A general shout of ridicule was the only consolation he received. Shortly afterwards the captain was apprised that this man was very ill. "I shouldn't be surprised," replied the captain, who chanced to have witnessed the occurrence from his cabin-window; "let the surgeon see him." "He has seen him," was the reply, "and pronounces him in cholera." The unfortunate vietim of this thoughtless triek, which overwhelmed him with fright, ridieule, and disgust, was a corpse in about four hours, and his remains, shortly after, were consigned to the deep.

does so, will render the inhabitants more susceptible of the atmospheric something improperly named cholera.*

In that most instructive and entertaining periodical, "Chambers' Edinburgh Journal," for July, 1848, I met with an article headed "Sympathy and its Eccentricities," which bears so strongly and appositely on the point before us, and is so replete with useful information, that I shall take the liberty of transcribing it entire, for the benefit of my readers.

"Sympathy may well be considered one of the noblest attributes of man, and seems, as it were, the mark of his divine origin. All his generous feelings—the readiness to 'rejoice with them that do rejoice, and weep with them that weep,'—have their rise in sympathy—that great bond which unites the society of mankind, and tends to the good of all. Sympathy even subsists between man and the lower creatures in no inconsiderable degree. Every one knows how the dog and the horse sympathise with their master, and how many instances are on record of the attachment shown by various creatures of different species to individuals of the human race, and how much man's sympathy for the lower creatures has been made subservient to their comfort. Beattie, in his 'Essay on Music and Poetry,' observes, 'Sympathy with distress

* Cholera, as in this instance applied, is a misnomer; it means a disease attended with an unnatural quantity of bile in the evacuations; whereas, Asiatic cholera is characterized by a total absence of bile.

is called compassion or pity; sympathy with happiness has no particular name:' and Adam Smith, in his 'Theory of Moral Sentiments,' defines it as 'a fellow-feeling with the passions of others;' that is, with such as we do not disapprove of. Neither of them, however, attempts to explain how its effects are produced—effects which we know are in a moment conveyed with all the rapidity of an electric shock. How it acts instantaneously on the nerves we cannot tell, but must rest satisfied that it is one of the phenomena of our being, depending, in the words of the learned commentator, Adam Clarke, 'on certain laws of nature, the principles of which have not as yet been duly developed.' However, it is evident to all that without this gift, life would be divested of happiness, interest, and pleasure. We are scarcely aware how many of our feelings originate in sympathy; from its associations spring, and that deep interest which we take in passing events, in which we ourselves have no concern: it transports us at once into the pitiable situation in which we see others, although it may be that those who are placed in it are utterly incapable of feeling it themselves. Thus we feel the most tender pity for the dead and for the insane, and often blush for a fault or rudeness committed by those who are perfectly indifferent or unconscious that they have been guilty of such.

"Actuated by sympathy, the patriot devotes himself to the service of others, identifying himself thoroughly with those who have inhabited the same

spot of earth, and sacrificing every personal advantage to the attainment of some benefit for them. The patriotism of the dispersed race, and all their heart-yearnings after a home which they never saw, arises from a deep sympathy with those from whom they are sprung. The indulgence of this feeling, even when it casts a shade of the deepest melancholy, is attended by such a tender and exquisite enjoyment, that none would wish to forego it; and, as if it were to fix and strengthen it in the mind, it is called into action in mere matters of taste and fancy. An affecting tale, a pathetic air, a touching subject brought vividly before us by the painter's or the sculptor's skill—all awaken a sadness that is so pleasurable, that there is no greater gratification; the deepest tragedies are attended by crowds, and the nearer the illusions of the stage can bring them to reality, the more they please. Indeed, when the representation is divested of an air of reality, or when a story, in itself of an interesting character, wants it, he no longer takes any satisfaction in them; while the wildest and most improbable fictions gratify, if the characters which they portray are made to act as would be natural in the situations in which they are placed—the reality of the portrait in one respect inviting our sympathy so as to make us forget its extravagance in another.

“The susceptibility of genius to every touch of sympathy, and the power of awakening it in others, are perhaps its most distinguishing marks, and appear to be quite essential to its development. Whatever

makes an impression on the man of genius excites some sympathy. In visiting ruins, he does not feel the mere pleasure of viewing them in their picturesque aspects, but finds a deeper interest in conjuring up to his imagination the remote times when they were as yet unscathed, and can sympathise with those who once trod the solemn aisles or lingered in the festive halls. His power of exciting the sympathy of others does not lie in the elaborate display and elegant finish of his art, whatever it may be, but in the earnestness with which he gives expression to his own feelings. Gluck was frequently heard to say, that when he was going to sit down to compose, he strove to forget that he was a musician—so necessary did he find it to give his whole mind to those passions which he wished to express. National ballads, composed under the influence of native scenery and feelings familiar to the clime, have such a powerful effect, that every one feels the justice of an observation made by one who well understood human nature—‘It matters not who makes the law, provided you take care who writes the songs.’ It has ample proof in the effect produced by the ‘Ranz des Vaches’ on the Swiss, when heard in lands distant from their home. All the tender sympathies linked with their native mountains and those they have left swell at the heart with such intensity, that they are frequently known to pine away and die of the fond yearning after home. Sir Joshua Reynolds once found himself affected to a considerable degree in the same manner. It was while he was abroad, that one evening,

at the opera in Venice, an English ballad was played by the band, in compliment to the English gentlemen who were present. It happened to be the one which was the favourite in London when Sir Joshua was there. 'He had heard it played and sung in every street and in every company,' as we are told by Allan Cunningham: 'it brought back fond and tender recollections of home, and longings after social intercourse with friends, and all the happiness and pleasure he had enjoyed: tears started to his eyes, and he returned to England.' One of the most engaging private singers that ever charmed an audience had no power of voice, but had such exquisite expression, as he adapted his lays to his native melodies, as never failed to awaken a responsive feeling in every bosom, and few could ever afterwards hear these airs without having their sympathies with the feelings to which the bard had given expression revived. The sympathy over which Handel had such power was, in his latter days, transferred from the subjects with which he had so long delighted the public to personal feelings for himself. As the sightless old man took his place at the organ, and threw his whole soul into a sublime voluntary, all listened with breathless veneration; but when his fine composition—

‘Total eclipse—no sun, no moon—
All dark amid the blaze of noon’—

was sung by Beard with deep pathos, it was so descriptive of Handel's own situation, that everybody was affected to tears.

“ The skilful orator knows well that the most simple appeal to the sympathy of his auditors will produce an effect which all the ornaments of rhetoric would never achieve. It was this power of awakening sympathy that made Sheridan’s memorable speech on the trial of Warren Hastings so effective, that it was absolutely necessary to adjourn the proceedings for some time, to leave an interval for feeling to subside, that judgment might not be warped. Kirwan, the celebrated preacher, whose eloquence drew together such immense crowds in the churches of Dublin, was so successful in his appeals to the sympathies of those who heard him, that the sums which he collected for various charities were quite extraordinary — many among his congregation not only emptying their purses, but stripping themselves of whatever ornaments they had about them. Rings, watches, and even the epaulets of officers have been found on the plate handed round for the collection. On one occasion, while he stood in the pulpit to plead the cause of the Orphan School, he was taken suddenly ill: he looked mournfully round, and then merely pointed to the children, who were ranged in the aisle beneath him, and almost fainting, said, ‘Feed my lambs,’ and burst into tears: the simple appeal touched every heart, and the collection on that day exceeded any he had yet made. But it is not alone in the excitement of the most tender and lively emotions that the power of sympathy is seen—it has frequently produced effects of a startling, and in some instances of a fatal nature.

“ The sympathetic feeling has been so overpowering in some cases as to cause death. Among several which are well authenticated, is one of a boy who was taken to see an execution, who became so overcome by pity, that he fell back and died. The sane have been frequently known to lose their senses by being confined in madhouses with those who were out of their reason; and it has sometimes happened that those without a shade of superstition have caught its tone from those who were its victims. The earnestness with which Blake the gifted painter gave expression to the wild delusions of his fancy, in his conversation with the visionary beings in whose presence he so often imagined himself, so far influenced the sympathies of some acute and sensible persons, that ‘ they shook their heads, and hinted that he was an extraordinary man;’ and thus were little short of acknowledging their belief in the reality of the enthusiast’s illusions. His wife, who was ever by his side, and listened to his discourses with those shadowy beings that he believed were with him, was firmly convinced that *he* both saw and heard them, though she could not. It is still more strange that many have been borne along the tide whose current they had previously been anxious to have seen stayed. There is something very exciting in the animated expression of popular feeling, and it has often happened that it has awakened sympathy in those opposed by judgment and sentiment to the cause which it passionately espoused, and led them on to act with the multitude. A young person well known to us went

to one of those great meetings held in the south of Ireland, in the year 1829, with feelings quite averse to the object of the assembly; but when he saw the crowd decked with their laurel branches, and found himself in the midst of the enthusiasm which pervaded all—when he saw handkerchiefs waving, and hats thrown into the air, and heard the loud acclamations of all about him—he felt his spirits become strangely agitated, and in a few hours returned to his home, his hat decorated by the distinguishing badge of the meeting—a huge sprig of laurel. It was thus with a lady of sober mind and sedate habits, whose conviction was against any faith in the unknown tongue, to which gift Mr. Irving's church laid especial claim. She entered his chapel with a thorough horror of the delusion; but when she witnessed the excitement which prevailed—the eager attention of the congregation—the devoted and enthusiastic bearing of those who believed themselves suddenly endowed with the miraculous power—she felt very strange exciting movements in her mind; and as she listened to the wild jargon, she said that she was seized with an almost irrepressible desire to speak too in that mysterious tongue.

“ There is a very remarkable instance of the effect produced on a person of quick sympathetic feelings in the case of Charles Lamb, who went to see a farce which he had written, and for which he anticipated the most flattering success. Long before it was brought to a conclusion, loud and vociferous expressions of disapprobation sealed its fate; they were so vehement

and hearty, that Lamb caught the infection, and his voice was loudly raised in the midst of the uproarious tumult, shouting with all his might and main, 'Off! off!' Adam Smith observes that our sympathy for others arises from our imagining ourselves in the same situation in which they are placed; it is this, he thinks, which makes us shrink and draw back our leg or arm when we see a stroke aimed and ready to fall upon the leg or arm of another. 'The mob,' he goes on to say, 'when they are gazing at a dancer on the slack rope, naturally writhe, and twist, and balance their own bodies, as they see him do, and as they feel that they themselves must do in his situation.' Indeed this propensity to imitate the actions as we catch the feelings of others, is undoubtedly one of the distinguishing marks of sympathy. In Boerhaave's academical lectures on diseases of nerves, he mentions a very remarkable case of a young man who was under the influence of this imitative sympathy. He says, 'he was addicted from his infancy to so great a degree of sympathy, that he would immediately imitate all motions made by others, and that without any inclination, and even against his inclination; insomuch that when he walked the streets he was obliged to look on the ground, to sit in company with his eyes shut, or to turn his face from his companions. If he saw a man shaking his head, that moment he would shake his own head; if he saw him laugh or smile, he would laugh or smile with him; if any one uncovered his head, he would do the same; if one danced, he would get up and dance

along with him: in short, whatever he saw, he would mimic it immediately, in spite of himself. If his companions laid fast hold of him and tied his arms, and he then saw any one gesticulating and playing antics, he struggled hard to get loose, and felt within him the strongest motions, which he was not able to conquer. If asked what he was doing, he said he knew not, but was so accustomed from his youth, and begged to be left alone, because his head ached from such motions, and he was greatly disturbed in mind, and withal as much fatigued as if he had done them of his own accord.'

"Sympathy has indeed its eccentricities, and *many of the mysterious nervous affections seem peculiarly under its influence.* The coughing of one person often induces it in another, and every one knows how irresistibly catching yawning is. It is said to have frequently happened in crowded churches and other large assemblages, that when a female has been suddenly seized with hysterics, others have been quickly affected in the same way; and there are many instances of the same kind in schools, when girls, from witnessing a schoolfellow under an attack, have been suddenly seized with the same disorder. *There are accounts on record of the spread of disorders which were neither contagious nor infectious, so that it would appear that the same state of the nerves which prevails in the sympathy that prompts imitation must exist in these strange affections.*

"It appears evident that any deviation in the affec-

tions from their natural course is productive of evil, and we may perceive that it is remarkably so with regard to sympathy; and yet though liable to such strange and fatal eccentricities, we feel that this quality is absolutely essential to our wellbeing. So necessary did some physicians consider it towards effecting a cure, that they held an opinion that both physician and patient should have faith in the prescribed remedy, to insure its success. However questionable this assertion may be deemed, the necessity of finding some one to sympathise with our feelings is felt in all the concerns of life, from the most important event to the most trifling amusement. The being cut off from this is perhaps what renders solitary confinement the most unendurable of punishments. It is remarkable how those who are deprived of their accustomed intercourse with their fellow-creatures, will endeavour to substitute something to satisfy their craving for sympathy: they learn to treat one of the lower creatures as a friend who can participate in their feelings. Many have opened their hearts to the winds and the woods. We knew a foreigner who did not understand English when first he arrived here, and could meet with no one who understood his native language; he afterwards described most vividly the uneasy state of his mind, which only found relief when he addressed the trees in his own language; and he would stay among them discoursing to them for hours together. The case of Phebe Hassell is remarkable: she was for years disguised as a common soldier; but she felt such a

forcible impulse to repose a confidence, that she imparted her secret to a hole which she dug in the ground. When Sir Joshua Reynolds had nearly lost his sight, he made a pet of a little bird; and when apart from society, and no longer able to occupy himself with his painting, he would walk about his apartment with his little companion perched upon his hand, to whom he chatted as if it could understand all that he said.

“ In this hurried view of sympathy, we have felt more than once, that were we inclined to speculate upon a subject beyond our reach, we might indulge in the anticipation of the more vivid development of this wonderful characteristic, as being a probable means of increased happiness and delight.”

ADDRESS TO THE BOARD OF HEALTH,
DUBLIN.

GENTLEMEN,

Having been appointed by the Board of Health, in 1832, as senior medical assistant in the Townsend-street Cholera Hospital, Dublin, under the superintendence of my esteemed friend, Doctor Hart, now Professor of Anatomy and Physiology in the College of Surgeons, and having been resident in the hospital during the months of May, June, July, and August, a period embracing the origin, progress, and termination of the epidemic, and which afforded me an opportunity of witnessing upwards of 3000 cases, I feel I should be wanting in duty to the public, and in gratitude to you, representing, as you do, both officially and personally (in part at least) the board of '32, were I not to come forward at the present moment, and offer both to the public and you the results of my experience then and there acquired. If, in so doing, I should differ with you on a minor point, I feel the less hesitation, because I have the very great pleasure of adding my humble, but well-grounded, experience in confirmation

of that part of your circular (dated September 1st,) in which you state that "all experience proves that cholera is rarely, if ever, contagious." Gentlemen, I feel peculiar pleasure in having it in my power, just at this moment, so to do, because I consider you have been unjustly and unbecomingly assailed by Dr. Graves and Surgeon Kirby, especially the former, who is so much junior to the senior member of the board, Sir Philip Crampton, that I think it very probable the latter was a preceptor to the former. Whether this be a fact or not, I consider the authority of such a board, fully and legally constituted as it is, should be treated at least with common and ordinary respect, and that any individual undertaking to differ in opinion with it, should especially bear in mind that abuse is not argument.

The particular part of your circular to which I beg leave to object, is the paragraph which says, "The non-contagious character of cholera fortunately removes all objection to the receiving of persons suffering under this disease into the ordinary hospitals of the country, whether infirmaries or fever-hospitals, all of which the Commissioners of Health advise should be open, and in readiness to receive destitute persons in cholera." Now, gentlemen, inasmuch as you have previously stated, that "all experience proves that cholera is rarely, if ever, contagious," you appear to me to have left yourselves open to a very fair objection; for if cholera, even in some rare cases, prove contagious, you cannot pronounce, *à priori*, what cases

will, and what will not prove contagious, and thus you would run the serious risk of introducing into infirmaries and fever-hospitals the contagion of cholera, if any such existed. What, too, is to be done with the present proper objects for admission, already too numerous to be accommodated? I say, proper objects, because the Act of Parliament distinctly says, these county infirmaries were founded "for the reception of surgical, and non-contagious medical diseases." But, in reality, my great and decided objection to the admission of cholera patients into either county infirmaries, or fever-hospitals, consists in this, not that I consider cholera a contagious disease, even in rare cases; I believe, on the contrary, that cholera is never contagious; but because I have every reason to consider that choleraphobia is highly contagious, and this from the fact, that several of my cases in Townsend-street, which were not cholera on admission, but perhaps common fever with sickness of stomach and confined bowels, lapsed into cholera before leaving hospital, and such lapsed cases proved invariably fatal. That such should be the fate of these cases is hardly to be wondered at: they were told they had cholera before admission; we were obliged to keep them, when once admitted, until we could discharge them cured, and when, weak and convalescent, they were surrounded by the horrifying sights, and groans of dead and dying persons, it is not surprising, then, that such individuals should be frightened into cholera, nor is it surprising that, when attacked, their previously weak

and debilitated constitution should make but a poor fight.

I shall never forget the case of a young woman, who was sent into Townsend-street as in cholera, but who had really only common fever: after about seven or eight days, when convalescent, she was sleeping tranquilly in the evening, when a person passing by her bed, and seeing the bed-clothes drawn over her face, thought she might be a woman recently admitted, and suddenly threw down the clothes from off her face; she started up suddenly, and screamed violently. I was told in a couple of hours afterwards that she was very ill, and upon inquiry learned what had occurred since I last saw her. She was now in cholera, and died before morning. I have no doubt, were four cases of blue cholera admitted into the Kilkenny county infirmary, one into each ward, that ere twenty-four hours had elapsed from the time of admission, we should have eight or ten new cases generated from amongst the patients previously in hospital.

I come now to a more agreeable part of my undertaking, namely, the adding of my testimony in confirmation of that part of your circular, which states, "that all experience proves that cholera is rarely, if ever, contagious."

Gentlemen, I have already stated that, in my opinion, cholera is not merely "rarely, if ever," but never contagious. I shall now give you my reasons for so stating:—When cholera appeared in Dublin in

1832, it was universally believed to be a contagious disease; the strictest precautions were everywhere taken to guard against its propagation from the infected localities and individuals. When a patient was reported in cholera, the cholera-cot soon made its appearance; the door was forced, if necessary, and the unfortunate sufferer, male or female, father or mother, no matter in what stage of the disease, was placed, *nolens volens*, in the cot, and jolted off to hospital, where it not unfrequently happened that, upon opening the cot, the patient was discovered to have died *in transitu*, and the remains were at once consigned to the dead-house! The gate of Townsend-street presented at that time an awful spectacle at all hours of the twenty-four, between the loud knockings for admission and the clamorous shoutings of relatives and friends seeking forcible entry. Frequently it was driven in, and the unruly and maddened relatives obliged to be handed over to the police. The clothes of those admitted were examined, and any worth preserving laid by, fumigated, and labelled for the relatives; the remainder were piled in a heap and burnt. The wards were amply supplied with disinfecting gases, and everything foreboded contagion. At the time, when offered the post of assistant, I should certainly have refused it, had not a younger brother offered to take it, and I was ashamed to acknowledge *cowardice*. Notwithstanding all this, I never remember a nurse to have taken cholera, though, at first, their supply was very inadequate, and their labours never-ending. Often,

when going round the wards at midnight, have I found them, the nurses, fast asleep across the legs of the dead and dying, worn out by sheer exhaustion! I never knew a Sister of Charity take cholera, though they sat for hours daily breathing the very breath of the patients! I never knew a Roman Catholic clergyman take cholera, though they were liable to be called on at all hours, and never disobeyed the call, administering the rites of their church, and spiritual consolation to souls about to wing their flight to eternity under circumstances the most appalling! I never knew a medical attendant take cholera, though there were, at one time, eight or nine in the hospital, whose duties kept them in more, or less, constant contact with the sick! Upon these grounds, gentlemen, I presume to affirm it as my conviction (if presumption it can be termed) that cholera is not a contagious disease. It is but fair to state, that a laundress took cholera, and died. I must explain, however, the particulars:—This woman had been for some time the servant of the medical attendants, and, as in such times she had abundant opportunity of doing, she was convicted of helping herself too freely to brandy, &c., and dismissed for drunkenness; however, from previous good conduct, she was allowed to act as a laundress; this degraded post she continued to fill for some time, but she returned on a Sunday night drunk, and making her way to the laundry, she flung herself on the first soft material she found; this chanced to be a heap of foul clothes from the patients,

intended for washing next day. She was found early on Monday morning still lying there, and in cholera. Now, however the contagionists may interpret this fact, I consider it a mere coincidence, not a consequence, a *post hoc*, not a *propter hoc*. The laundress, very probably, neither knew, nor cared, where she was lying, and if we are to suppose that she took cholera from the foul clothes, how then are we to explain the innumerable instances of nurses lying fast asleep across the legs of the dead and dying, and yet escaping with perfect impunity? In the summer of 1833, I was called from Kilkenny to visit a farmer who tenanted a most comfortable house and out-offices in an isolated locality; I found the farmer, a man of about sixty years, in blue cholera. I inquired had he arranged his affairs? he said, No, and that no one would come near him who could do so. I offered to write down his wishes, in the presence of his family, and have the paper duly witnessed and signed. It was at once agreed to by all parties, and executed. I was then brought to another room to visit his mother, aged eighty-three; she was also in blue cholera, and told me “she knew she was dying, and I need take no trouble about her;” she was quite right, and expired a few hours after—he survived about thirty hours, and though imbibing abundance of nourishment, never rallied. No precautions were taken against contagion here, and yet no other member was attacked. This fact seems to me to prove two more facts:—1st. That cholera is not contagious, and, 2dly, that the infirm

and debilitated are those chiefly, if not altogether, attacked. Having now disposed of the question of contagion, I shall make a few remarks upon the disease, and the treatment ultimately decided on by me as the most appropriate:—There can be no doubt that, in the vast majority of cases, cholera commences in a diarrhœa, which may continue for one or more days, gradually exhausting the patient, until, at length, vomiting and spasms are superadded, and cholera is then complete. This primary stage of diarrhœa cannot be too strongly impressed on the minds of both the profession and the public—this is the time to cure cholera, and this is the time during which it can be easily cured, provided the patient will go to bed, take two or three grains of opium, and a little mulled Port wine; but if, as very often happens, the patient will neglect this diarrhœa, and will continue walking about, and attending to his business, then, sooner or later, vomiting and spasms will command attention, and he will then lie down, only when he is no longer able to stand, his physical powers completely exhausted. This mistake is to very many irremediable—I never knew a person, much past the prime of life, recover, once he had lapsed into the blue, or pulseless stage; the diarrhœa and vomiting may be subdued, the spasms controlled, and the patient comparatively at ease, and taking abundance of nourishment, perhaps even—

“Crowning with Hope’s bland wreath his shudd’ring nurse.”

when suddenly he sinks, suffocated by effusion into his chest. Whether, as in the case of the chest, the effusion from the bowels be preceded by a temporary suspension of function, I am not prepared to affirm, but reasoning from analogy would induce us to suspect it. A favourite pill of mine for suppressing this diarrhœa, is two grains of the *acetate of lead*, one grain of *watery extract of opium*, and one grain of *capsicum*, made into a pill with *syrup of ginger*: this pill I used to repeat every third or fourth hour, or oftener if necessary, until the diarrhœa was perfectly subdued. Should vomiting and spasms be also present, not a moment is to be lost: my sheet-anchor then was *one scruple of calomel* and *two grains of watery extract of opium*, made into *two pills*, and *only two*, with *very little* syrup. I lay very great stress on there being *but two pills*, because then each pill will be as heavy as *a swan-drop*, and though the stomach *may*, and *will* endeavour to reject them, *if drinks* be withheld, and *only a sip or two* occasionally allowed, it will not be able to effect it; by-and-by it becomes accustomed to their presence, and, as they dissolve, it becomes more and more composed, until, at last, a quiet dose, gradually increased, tranquillizes all, and crowns our hopes with success. The discharges from the stomach should be carefully examined; we are by no means to conclude that because it has rejected *fluids*, it has also rejected *the pills*—I would not hesitate, *if necessary*, to repeat the pills, but I certainly would hesitate before giving them a *third time*, and for this reason,

I once saw these pills given *a third time* to a patient in blue cholera; in a few hours good reaction set in, and the patient recovered, but, during recovery, a most profuse salivation set in, and the poor fellow left the hospital *minus* the incisor teeth, and alveolar processes of *both jaws*. I am not one of those who would administer such a potent medicine *as calomel*, as if it were so much *saw-dust*, giving *some hundred grains* to a patient, as we are told, *with impunity*: the only way in which I can account for such reckless practice not producing suitable results is, by concluding that the calomel was administered in such a manner, and with such a plentiful supply of drink, that it was rejected as fast as swallowed, and, *at best*, did no harm. I consider brandy and cold water the best drink, given in small quantities at a time, say half an ounce, or at most, an ounce, every ten minutes or quarter of an hour; the mixture need not be stronger than one part of brandy, or old whisky, to two or three of cold water—if it be, the patient will most probably complain that it is *burning him*, and not like it: a great deal consists on these occasions in giving a patient *what he does like*. Let us but guard against giving too much of anything, and quiet the stomach, and half the victory is won. Reaction will soon set in, and, that once fairly established, if we then moderate our stimulants, we shall find the after-treatment simple indeed. Should we, on the contrary, push stimulants too far, and too fast, we may kindle up a secondary fever, which will assuredly kill the patient. This

mistake I frequently committed, and witnessed others commit at first, till experience taught me to hold my hand in time. I would much prefer allowing a patient to gratify his own inclination, and take nothing else but *cold water* in moderate quantities, than force him to take stimulants too strong, or too long continued. I have given a full trial to mustard, in the form of an emetic, an enema, and a sinapism, and shall certainly never try it again, in any one of the three, especially the first. Why, upon any principle of common sense, add to that irritability of stomach, which it is a matter of the most paramount importance to allay? It is a gross and fatal blunder to imagine that vomiting, however excited, promotes reaction. It does *exactly the contrary*. It may cause a temporary development of the pulse from the mere *physical effort* of the act, but physical exertion is the very thing which should be avoided, and the subsequent prostration plainly proves the error. Sinapisms invariably caused great restlessness, but never, in my opinion, any good. Mustard enemata I consider just as valuable, and on the same principle, as mustard emetics. Carbonate of ammonia I have never tried in cholera, but judging from my experience of it in low typhus, and the suffocative stage of bronchitis, I should not, *à priori*, expect that it would suit the irritable stomach of cholera. We, at first, loaded our patients with blankets, and hot appliances of all kinds, had the hands, arms, and legs bandaged with flannel rollers, &c. I remarked, after a while, that the patients tore off the bandages,

and drew their feet away from the hot jars; in fact, a patient in cholera cannot keep quiet in any one position; he flings his extremities about in all directions, and nothing appears to give him greater annoyance than being in any way controlled in his movements. We cannot be much surprised at this, when we remember how violent must be the pain of the spasms, and how distressing the sense of suffocation which causes him *to cry out for air*. After a time I took care not to oppress the patient with covering of any kind, and though I ordered a hot jar to his feet, I knew very well it would not do him much good. The fact is, all such efforts are nugatory. When reaction sets in, the lungs have resumed their functions, caloric is generated *in the centre*, and diffuses itself throughout, till it reaches *the surface*, and then, and not till then, we feel *a dry and warm skin*, that certain indication of returning health. I know nothing more indicative of approaching dissolution than a warm and copious perspiration, especially when combined with a hurried breathing: it is a very deceptive symptom and has often led to a wrong prognosis. My object now, in treating a case of cholera, would be to allay the irritation of the stomach and bowels (the latter, if necessary, by small astringent enemata and laudanum) as soon as possible: not to annoy the patient by any applications: to allow him a copious supply of pure and cool air; a very moderate supply of pure and cold water; medicated, if he will take it, by a third or fourth part of brandy, old whisky, or

wine : not to be in too great a hurry to force on reaction : and when reaction had set in, at once to moderate the supply of stimulants. I should consider the diet most suitable in cholera times, that which would be most nutritive, and least apt to disagree with either stomach or bowels—such as good butchers' meat of all kinds : fish, especially salmon, is very apt to disagree with many, and should therefore be avoided. If a man have been in the habit of taking wine, brandy, or old whisky, there is no occasion why he should refrain from doing so still, provided he uses them in due moderation. Above all, let a man preserve that equanimity which every well regulated mind knows how to maintain—despising, as worse than useless, those *ridiculous nostrums* which hold a prominent place in many apothecaries' shops. Gentlemen,—I do not presume to preach, this I shall leave to learned and pious prelates, and zealous and consistent parochial pastors ; but I do not hesitate to aver, that I fully coincide with Lord Bacon, when he declares, “ It is certainly a heaven upon earth to have a man's mind move in charity, rest in Providence, and turn upon the poles of truth.” I do not assume either that I have learned all that can be known of cholera.

“ Were man to live coeval with the sun,
The patriarch-pupil would be learning still ;
Yet dying, leave his lesson half unlearned.”

But I am certain I have acquired a good deal of what will be useful, and that I have been taught to avoid

a great deal of what would be positively injurious, nay actually fatal; bleeding to wit. I have acquired, too, a thorough disbelief in the contagiousness of cholera, for I am certain, that when cholera reaches any locality, it is equally diffused throughout that locality; but, like the hovering eagle, makes its stoop upon its easiest and surest prey: hence its fatality amongst the poor and profligate. Our worst cases came from *Leeson-lane*, yet I never heard of any case occurring in *Leeson-street*. And that cholera primarily affects the nerves of function, I conclude from the evidently arrested function of the lungs (notwithstanding the free and frequent respirations of the patient), and the colour of the blood; the suspension too of the biliary, renal, and lachrymal secretions, and the vitiated and increased secretion of the entire mucous membrane of the stomach and bowels.

Hoping, Gentlemen, that you will accept this address in the true spirit of my concluding quotation,

“Non ego paucis
Offundar maculis, quas aut incuria findit
Aut humana parum cavit matura,”

I remain your obedient servant,

NATHANIEL ALCOCK.

NOTES AND ANNOTATIONS.

THERE are, no doubt, many other medicines and form of medicines, which might, perhaps, answer the purpose of arresting the diarrhœa of cholera equally well as the pills of acetate of lead, and opium. I think, however, I have found these answer the purpose better than creta-mixture, kino, catechu, &c. &c., and they possess this advantage, that they can be always ready for use, and are very portable.

In like manner other remedies might succeed in allaying the irritability of stomach, but I certainly give decided preference to the calomel and opium pills in the quantities mentioned. We have in them the sedative qualities, notoriously the property of calomel, in a scruple dose, combined with the opium, and the calomel afterwards rouses the arrested functions of the liver. We have in them, also, a very portable form, ever ready for use, a matter of no small consequence both to practitioner and patient; an hour or two lost in sending here and there, might decide a patient's fate in cholera. There is this great advantage in giving medicine in the form of pill in cholera,

that though the stomach may turn immediately, or shortly afterwards, we can ascertain, by examining the basin, whether the medicine has been rejected or not, and thus avoid administering it unnecessarily. I have tried, in cases of vomiting otherwise uncontrollable, a scruple of the nitrate of silver, dissolved in ℥ij. of distilled water. It was retained for about twenty minutes, and then always rejected, but it produced the desired effect of arresting the vomiting. I have also found a similar dose act most beneficially in hæmatemesis. The late Dr. Colles, a rare combination of industry and talent, occasionally came round the wards of Townsend-street with me, and, as he walked along, enlarged the ideas of a respectful pupil; amongst other useful hints he suggested a remedy, which will frequently succeed; it was this—℥j. of carbonate of magnesia in ℥j. of cinnamon, or mint-water, containing four or five drops of black drop, and in a quarter of an hour after a table-spoonful of lemon juice. His time was too precious, and his visits too few and far between. Sir James Murray's fluid magnesia, followed by the acid syrup, now affords us a more elegant mode of carrying out Dr. Colles' views. It is not easy to account for the herculean quantities of calomel so strongly advocated by Mr. McCoy; only imagine *half an ounce of calomel to one patient!!* Could it be, that the apothecary having some conscience, substituted lump sugar for calomel? In addition to the explanation already given in my address, I think it very probable that

Mr. McCoy did not witness the progress of *many* of these patients through secondary fever: that is the time to see the effects of large quantities of calomel given *during collapse*.

I have derived good effects from the use of small, astringent enemata combined with laudanum, ʒj. to ʒij. of sulphate of alum in ʒiiij. of water, and ℥ij. to ʒj. of laudanum form a good enema. It is always necessary to tell the patient that he must endeavour to retain this enema as long as he can, otherwise he will most assuredly pass it in a few minutes, and thus it would have been better it had not been given at all. It has only disturbed and annoyed the patient. The best intentions are thus defeated by a little want of caution.

Although we had upwards of 3000 cases during four months in Townsend-street, they were not all cases of cholera; as may be supposed, in a time of such universal alarm, many individuals attacked by sudden illness were sent in, who were not labouring under the epidemic. An elderly woman fell to my lot, who, upon my inquiring into her illness, thus reported:—"After breakfast this morning I was seized with sudden and violent pain in my bowels; my stomach got sick, and I began to vomit, and the vomiting and violent pain have lasted ever since:" this was about 7 P.M. I inquired, had she much purging? she replied, she had no purging at all, that her bowels were bound. I thought this was not exactly the history of cholera, and suspecting something else, I examined the abdomen. I found, in the site of the

femoral arch, a round small tumour, about the size of a pigeon's egg, excessively tender to the touch. I endeavoured by the usual manœuvring to get this back, but could not succeed. I then had Mr. Hart's assistance, but he was equally unsuccessful. It was then resolved to transmit the case to Stephens' Hospital, and being anxious to follow it up, I sent for an inside-car, and accompanied the woman. It was late when we arrived at Stephens' Hospital; the patient was at once put into a hot bath, and afterwards other attempts were made to return the hernia, but with no better success. Resolved on seeing the issue, I slept in the rooms of a friend. Dr. Cusack was summoned early next morning, and soon arrived. He decided on an immediate operation, which was performed with his usual ability, and a small knuckle of intestine was found in the sac, which also contained some fluid. The stricture being divided, the intestine was easily returned; the wound was dressed in the usual manner, and having safely consigned my charge to Dr. Cusack's abler hands, I took my departure, and returned to Townsend-street. It is unnecessary to make many comments upon this case. It speaks for itself. The suddenness of the first symptoms were well calculated to cause her friends to conclude that she laboured under cholera, especially in cholera times; had the real nature of the case been overlooked in the hurry of business, and the patient treated for cholera, of course the termination must have been fatal. Several cases of violent hysteria were sent in, which at first gave us a great

deal of trouble and anxiety. The patients screamed, and worked violently, causing great disturbance in the wards. These, in the commencement of our career, we set down as cases of *sthenic* cholera, and treated to plentiful bleedings. Some we cured, and others were injured by the activity of our treatment. After a while, however, suspecting the real nature of their ailment, we began to think less of sthenic cholera, and plume ourselves less on our successful mode of treating such a *nonentity*.

In the "Dublin Quarterly Journal," for January or February, 1833, appears a communication from William Harty, M.D., Physician to the Prisons of Dublin, and author of a work on "Dysentery," highly and deservedly lauded by the Reviews, British, Irish, and Continental. Dr. Harty's communication of 1833, is "On the Contagion of Cholera," which he ably combats, and upon very strong facts indeed; he alludes, *inter alia*, to a statement made to him by me, in which he says, "a nurse and a laundress died in Townsend-street." The case of the laundress I have given at full length; I have not the slightest recollection of any nurse having died; possibly, the laundress may have been originally a nurse, and that nurse and laundress may have been one and the same person. I shall, however, take occasion to consult Dr. Harty on this point, whose accurate statistics will at once decide the question: not that I consider it a matter of the slightest moment, so far as contagion is concerned, but I should wish to be critically accu-

rate in any statement made under my own hand. I was not aware, at the time, that Dr. Harty intended publishing any statement of the kind, and remember very well being taken by surprise when I saw my name in print. From the close terms of intimacy and friendship upon which Dr. Harty and I were, he might have well considered himself authorized to publish, unauthorized, any statement of the kind, of the accuracy of which he felt certain. I make these remarks merely for the purpose of explaining how, possibly, a misconception may have arisen, and, also, why I have myself no recollection of the nurse's case. Dr. Harty concludes his communication by alluding to some cases of cholera which occurred in one of the prisons under his care, and which, he says, he shall, "in my correct phraseology," designate "the *sthenic* form of the disease." I recollect perfectly well having used the epithet, *sthenic*, in a conversation I had with Dr. Harty, and even reading from my case-book, what I considered at the time, a strongly marked case in point. I must, therefore, now, only apologize, thus publicly, both to him and others, for ever having used the expression, "*sthenic cholera*." More extended experience, and maturer deliberation, convince me, *there is no such thing*; that cholera is essentially *asthenic*, and that "*sthenic cholera*" is only an English exemplification of the oxymoron of the Greeks, the *concordia discors* of the Latins, and the love-knock-him-down of the Irish. I read a small pamphlet from the pen of Dr. Patterson, of Rathkeale, well calculated, if

it have made any impression, to do an infinity of harm. His second visitation of cholera was evidently *dysentery*, and his treatment, so successful in his cases, would, in my opinion, be ruinous in Asiatic cholera.

We had also, occasionally, cases sent into hospital as cholera, which were only the commencement of common fever with vomiting, but confined bowels. These were easily distinguished from true cholera; but the most provoking part was, that once in the hospital, we were compelled to keep them there; their friends would not take them away until they were able to walk home: and from having seen more than one of such cases, during recovery from fever, lapse into cholera, (I have no doubt from fear and apprehension,) I was always in a great hurry to get rid of them, and send them home as soon as possible.

In my preliminary remarks upon my cases, I forgot to mention a symptom which was, like the warm colliquative diaphoresis, a sure precursor of death. It was a discharge from the bowels of a fluid very much resembling raspberry cream; whenever this discharge made its appearance, I might be certain the patient would not recover. I mentioned the circumstance to Mr. Hart, and we agreed to make a post-mortem examination in the next case of the kind that should occur. One soon presented itself in the person of an elderly, debilitated man. Accordingly, at midnight, Mr. Hart and myself proceeded to work, and all we could discover in the abdomen was, that the same kind

of fluid lined the greater portion of the intestinal tube; but, to our surprise, we found the cavity of the peritoneum contained more or less of reddish serum. Mr. Hart then proposed to examine the tunica vaginalis, and in it we also found some of a fluid similarly coloured. We had not time to examine the cavity of the pleura. Mr. Hart's explanation, at the time, was, that the vital powers were so depressed, and the exhalants so relaxed, that they allowed the coloured, as well as the colourless portions of the blood to escape from their orifices.

CASES.

I SHALL now give a few of the best marked instances of the effects of blood-letting in cholera, tried by Mr. Annesley's advice, and that of his worshippers and advocates, Messrs. Bell and Greenhow. The cases adduced shall be faithfully copied, verbatim, from my case-book in the *ipsissima verba* in which they were taken down at the patients' bed-sides, at all hours of the day and night, save six, which were necessarily devoted to rest. The reader is not to expect, therefore, that any attention was paid either to diction or style: there was no time for such things in Townsend-street; on the contrary, it was by no means an easy matter to snatch even the few minutes required for each individual case, amidst the cries and moanings of the dying, the entering down of prescriptions, and the issuing of orders to nurses; even the harassing appeals of the craving sufferers "for gallons of cold water, and nothing else," added not a little to the distraction. This insatiable craving for cold water I used to restrain within due bounds, by reasoning with the patient, and telling him that

his stomach would instantly repel it, and that the act of vomiting would only weaken him, but I would allow him a sip often, or that he might rinse his mouth frequently. Many took advantage of the opportunity at first afforded for rinsing the mouth to fill the stomach, but they very soon became convinced of its impropriety, and, though harassed by a burning thirst, had fortitude enough not to satisfy its cravings. A quarter of an orange sucked, not swallowing the core, was often very grateful, but though I tried very many expedients, I must candidly admit "cold water" was the universal favourite. A very harassing symptom in the progress of some cholera cases, was the almost incessant vomiting of dark green bile, blue black bottle green, after reaction had for some time set in. This I endeavoured by various expedients to subdue; all my efforts, however, proved unavailing, and yet, strange to say, the patients almost invariably recovered, in defiance of the disease and the doctor: this certainly was not "*secundum artem*." However, it caused me to reflect, and the result of my deliberations was, that this vomiting of dark green bile was nothing more than an effort of nature to relieve a liver, whose action having been for many hours suspended, it was now engorged by an unnaturally increased secretion. Having adopted this view of the case, I gave myself afterwards no trouble whatever about such an occurrence; I not only took no measures to arrest it, but, on the contrary, I rejoiced to see it appear. I think I have seen persons farther advanced

in years recover when this symptom developed itself, than in any other form. This can be easily accounted for. What generally carried off elderly persons, who arrived at the stage of reaction, was effusion into the chest. This, of course, was a much more formidable enemy to recovery than bilious vomiting; the latter left the respiratory apparatus in full play, and had itself an easy, though distressing, exit upwards and downwards, whereas the former not only filled the lungs with an unnatural load, but also prevented the access of air, and thus again suspended the action of the pulmonary factory, that vivifying principle of the entire human fabric, which not only makes good blood out of bad, and at the same time eliminates the impurities in the form of carbonic acid, and, whilst so doing, generates caloric, but furnishes a regular supply of arterial blood, the want of which appears to have been the cause of all the suspended secretions. Should symptoms of debility evince themselves, I was in the habit of administering nutritive enemata.

There are many other peculiar symptoms, which from time to time exhibit themselves in the progress of a case of cholera, which will at once strike the eye of experience, but which cannot be so well enumerated. I shall mention two or three more. A hurried respiration and constant crying out for air is a fatal symptom; it seems to indicate that though the lungs are in full, and more than full action, their function is suspended generally for ever. Another fatal symptom constantly accompanying this is a profuse and warm perspiration.

This symptom has very often deceived numbers: they are apt to consider it critical, as they say, and therefore good, as in ordinary fever; in cholera, however, especially when accompanied by a hurried respiration, and calling for air, I know no more certain harbinger of death. It is a very awkward thing for a medical man to announce to the relatives and friends of a patient "that he is certainly better, and that when he calls in the morning, he hopes to find him much improved," whereas, before the doctor shall have retired to rest, the patient will probably have done the same.

We know there is such a thing as colliquative diarrhoea. This I shall denominate colliquative diaphoresis.

A patient from not passing water, and being frequently asked by his attendant has he done so, has often his attention so much directed to the point, that he will imagine he really is under the necessity of so doing, and having made the attempt, and failed, he will assure you he requires to do so, but is not able. I have frequently, to gratify him, and satisfy myself, introduced a catheter, but never found any water, at least worth speaking of. He labours under suspension, not retention. The suspension of secretion in the lachrymal glands forms a very remarkable feature in the cholera of children; the tearless, solemn sunk eyes of childhood in the sufferings caused by severe spasms cannot but have struck the most casual observer.

“CASE 1.—*Monday, May 14th, 1832.*—Mary Farrel, ætatis 35, admitted at 8 A.M., was attacked with vomiting yesterday after dinner, at 2 P.M.; purging soon succeeded, and both continued during remainder of day and night, accompanied during night with cramps about knees. When admitted, she was in complete collapse; pulse gone, extremities cold, tongue white and cold; great desire for cold water, (which, she says herself, she would drink a gallon of, but would reject instantly;) much oppressed about præcordia. Half-past eight: Stimulating draught; nine leeches to epigastrium. Half-past nine: draught rejected; calomel, ʒj. opii, gr. iss, in pil. ij. statim. Ten o'clock: No reaction setting in; calls for cold water; stomach still irritable; breathing oppressed; no pulse; hands blue and cold. Half-past ten: Large mustard cataplasm applied over epigastrium; eighteen leeches to thorax. Half-past eleven: No reaction; importunate for cold water, which she drinks frequently, and rejects; but if not given, she falls asleep and forgets it for some time, till she again awakes. We are obliged to remove mustard cataplasm; mustard enema, which was given shortly after coming in, has now come away without bringing anything. Half-past twelve: Mulled wine and æther every half-hour. One o'clock: No reaction; hands have become very blue, but not to say cold. Half-past one: hands becoming paler; she is much oppressed in breathing; tosses about; appears sinking; gasps for breath; dies.”

“CASE 2.—Rose Cunningham, a servant in Post-office, ætatis 26, was attacked at 1 A.M., this morning, and so violently that, though she attempted to call aid, she fell on the floor, and remained there till morning, when she was found in a state of collapse, and brought here at 8 A.M. Her extremities were cold and blue; no pulse; cramps in legs very violent; attempted to be bled; no blood could be drawn; she got mustard emetic, and was afterwards well plied with stimulants. Half-past ten: She appeared dying; hands cold and blue; face and lips the same; bleeding was again tried, and after some time, $\frac{3}{4}$ xiv. were drawn; it was black and ropy; the blueness of hands and face diminished. She then became very violent, and was evidently under the influence of the stimuli; got twenty drops of laudanum; this did not quiet her; she became generally warm and moist; pulse is not established; can't be held in bed; won't take medicine. At half-past one is very oppressed in breathing; chest heaves; is lying quieter; face is become blue, and also hands; at half-past two died.”

“CASE 3.—Brien Gray, ætatis 54, has been attacked for last two days with diarrhœa; to-day, Monday, May 14, diarrhœa increased, and cramps attacked him in legs; he came in about 5 P.M.; pulse weak; tongue moist and white; got an opiate draught; at seven, pulse very low; cramps increasing and attacking upper extremities: brandy draught at eight; pulse pretty good; cramps very severe in lower extremities; thirsty; calling for cold water; bled to

3̄ xiv. ; pulse gone ; became very restless ; cold perspiration over face ; nearly fainted : brandy draught repeated ; calomel, ʒj. opii, gr. ij. in pil. iij. ; one every three hours : at this time cramps were greatly relieved : in two hours after, cramps becoming very severe, the other two pills were given. He now fell asleep, and awoke at half-past eleven, greatly relieved ; pulse recovering ; cramps in lower extremities still occasionally severe. Two o'clock, Tuesday morning, is sleeping tranquilly ; cramps greatly diminished ; pulse become regular, though weak ; is passing rice-water. To have at 6 A.M., calomel, gr. x., pil. hydrarg. gr. viij. in pil. iij., one every two hours. Eight A.M. : Discharges from rectum have become very copious, and inclined to red ; opiate enemata, containing 3̄j. of laudanum, three in number, given at short intervals ; discharges continued ; patient became very restless and oppressed ; got wine ; died at 3 P.M., with great oppression of breathing."

"CASE 4.—John Knox, ætatis 32, on Tuesday morning, 15th, at 5 A.M., had four or five loose stools, but afterwards went to work, and continued at it the entire day ; he returned at 9 P.M., and shortly after was seized with vomiting ; spasms almost immediately followed ; and he worked most violently, until his admission at half-past 11 P.M. : he was then quite exhausted ; extremities cold and blue ; pulse gone ; tongue cold and white ; spasms still continued most violent : he got a mustard emetic, which operated instantly ; no reaction ; mustard cataplasm ; got

brandy draught, with æther and laudanum; this, after awhile, was rejected; it was repeated, and given at intervals, which enabled stomach to retain it; no benefit resulted; cramps continued as before; his extremities were well rubbed with flannels: he became almost perfectly unmanageable on getting out of bed; no reaction still: he was bled, with difficulty, to about $\frac{3}{4}$ xij.; his face became paler, and covered with cold sweat; cramps were not diminished. At 2 A.M., he got calomel, gr. x., camphor, gr. iv., opii, gr. i. in bolus; he remained quieter for about an hour, and then vomited; would sleep at intervals, and then awake and drag his legs from warmers, and insist on being left free, when he would toss about in all directions; complained of oppression about heart, and called for cold air; calomel, $\frac{3}{4}$ j., camphor, gr. x., capsici, gr. viij., in pil. vj., three to be taken now, at half-past 3 A.M., the rest in three hours; no pulse; extremities still cold and blue; remained a little more tranquil, but cramps still returning at intervals, and very severe. After taking the three other pills, cramps subsided, and he slept tolerably tranquil; was well supplied with brandy punch. At 9 A.M., though inclined to sleep, and quiet, no reaction. Pulse not to be felt; warmth kept constantly applied to extremities; got $\frac{3}{4}$ iij. of port wine, and ordered beef-tea. At 11 A.M., general, though cold perspiration; no pulse. At half-past one, moisture very copious, and at same time rather warm; expresses great desire to pass water, but, on being permitted to make

trial, could not pass any; catheter introduced; no water in bladder; $\bar{z}$ iij. of wine mixed in strongly-spiced beef-tea. At half-past 4 P.M., body generally of good heat; still no pulse; had taken his wine and broth; got oleo ricini, $\bar{z}$ j. senna tinctura, $\bar{z}$ ss.; in half an hour after, passed for first time a slatish-coloured fluid stool; passed five or six fluid stools in next two hours, which are becoming of the colour of raspberry cream; pulse is not showing; gets broth and spiced wine freely; lies sleeping; and, when awakened, is confused and dull; head feels hot; six leeches applied to temples; they are not able to draw blood. He is now, at 8 P.M., with hands blue and cold; feet not decidedly blue, and of fair heat; no pulse; can't be got to take nourishment. Mustard cataplasm to thorax produces no sensation; strong mustard enema; no effect. Held on in this state till 1 A.M., and died.

“CASE 5.—Mary Meigham, ætatis 34; admitted at 1 A.M. on a Thursday morning. At 10 A.M. yesterday, felt some griping pains, which continued till 3 P.M., when purging and vomiting set in, and continued at intervals of a quarter of an hour, or less, up to present. They are now rice-water. Since eight, she has had cramps in legs and toes, occasionally in thighs. Stomach still very irritable; great thirst, especially for acid drinks; pulse perceptible, but very weak and rapid, up to 120; hands not cold; feet cold; tongue furred a little in middle, whitish at edges; breath warm; no blueness; great weakness. Get calomel $\bar{\eth}$ j.,

opii gr. ij., in pil. ij. Though very anxious for drinks, not allowed them, in hopes of pills allaying irritability. Brandy mixture: $\text{z}ij.$ brandy to $\text{z}v.$ water, sugar $\text{z}ij.$; get $\text{z}j.$ Stomach has continued quiet for about twenty-five minutes; vomits, but pills do not appear in discharge. At a quarter to two, is becoming easier; legs well rubbed are become warm. At a quarter-past two, has had no vomiting since, but has passed twice the rice-water from bowels; get some of draught; pulse appears better. At half-past two, complains a good deal of cramps in stomach, and at times in legs; mustard cataplasm to stomach; dislikes the draught, it would appear from the ether; is apt to reject it. Gets mulled wine, and likes it; retains it for a quarter of an hour, and then vomits; seems yet benefited. Pulse improved, has got by three $\text{z}iv.$ of wine, with infusion of cloves; complains of pain about stomach and sinapism; it is removed; cramps in legs severe, they are well rubbed; is tossing, and complains of sickness. Get calomel gr. x., opii gr. i. in pill; still very restless; pulse is 144, and fuller; bleeding to $\text{z}vij.$ tried; pulse sinks evidently. Quarter-past three: wine continued; mustard enema; hands inclined to blue. From four till ten: well supplied with mulled wine, but stomach very often rejects it; gets enema of broth and eggs, to be repeated at short intervals; wine repeated. Stomach so irritable that I attempt to raise a blister with boiling water over it—she starts, and I am unable to do so; scarificator applied, and two grains of acetate of morphia

rubbed in. She is much quieter; stomach less irritable; gets wine, and retains it; nutritious enemata given during the day. She is still losing ground; hands becoming blue; continues to sink, and dies at seven in the evening."

"CASE 6.— ——— was attacked on Wednesday last, May 30th, at 3 A.M., with vomiting and purging, which were frequent. At 8 A.M., cramps in toes and legs set in; she continued during Wednesday and following night to be harassed with all three. At 10 A.M. this day, Thursday, vomiting and purging ceased, but cramps have occasionally returned. At admission she had some tendency to blueness of face, with sunk eyes and dark areola; her voice is low, but not whispering; her skin is of a good warmth on extremities and trunk; pulse, 114, and good strength; tongue a little coated, but warm; breath warm. Her sister states that during yesterday her hands were very blue, and she herself much more sunk and low than at present. Her hands are not now blue, and from her appearance, pulse and feelings, I look on her as a case in which reaction is decidedly establishing itself. Her stomach since morning has retained drinks. I thought the case, up to this, *mine*, and was determined to aid the commencing reaction by wine and sago, and afterwards to moderate it, as symptoms should indicate. The case proved not to be mine, and she was bled *instanter* to 3vij.; pulse became visibly reduced in strength; she was then given a stimulating draught, had a sinapism to stomach and blister to chest. She appeared a good deal re-

duced by the loss of blood; stomach rejected draught; laudanum was added to next draught, and she retained it: however, pulse did not recover itself. She gradually grew weaker, breathing became oppressed; she ultimately refused stimulating mixtures, and became unable to swallow, and died at half-past twelve same night."

P.S. I feel confident that in this case the bleeding was destruction. These six cases I have enclosed in inverted commas, as accurate quotations from my case-book. I deem it quite unnecessary to add another in order to prove the effects of bloodletting in cholera. The Doctor to whose lot the last case fell, insisted that it was not a case of incipient reaction, but of progressing cholera in its first stage. If so, I do not think he had any reason to congratulate himself on having tried the effects of bloodletting in the first stage. Indeed, at this time I was resolved never again to do so myself, both from what I had witnessed as the result of my own experiments, and also from having heard faithfully detailed the results of venesection in a painfully decisive case. They were as follow:—

CASE 7.—A young man walked with his friends into Townsend-street, about 7 P.M. He had been shortly before, after dinner, seized with vomiting and purging, and spasms were setting in. He appeared faintish—but as the attack was so recent, it was decided that now or never was the time to try and prove the effects of bleeding; accordingly, he was bled, and largely; but his pulse, instead of becoming more fully developed,

became weaker and weaker, and he fainted. Vomiting and purging increased rapidly, and in about four hours he was a corpse.

I shall now give a few cases of what I designated sthenic cholera—that is, in other words, strong cholera, in contradistinction to the usual asthenic, or weak: the former demanding depletion, and active depletion, too; the latter neither requiring nor bearing it.

CASE 8. — Thursday, half-past 8 P.M.: Mary Murray, ætatis 21; strong healthy girl, has had, yesterday and to-day, an irregular purging; to-day, at half-past 4 P.M., got sickness of stomach, which turned twice; in an hour after she was attacked with general spasms, commencing in lower extremities; they are particularly bad about stomach, which is excessively tender on pressure, and if touched causes exquisite pain. Pulse strong and 90; tongue coated in centre, and whitish towards edges; complains of great pain in the head. Half-past nine: was bled to 340; pulse rose to 108; spasms diminished: got calomel, gr. x., opii, gr. j., in pil. In an hour, spasms still continuing and increasing, 3xvj. more were taken; she was also complaining of great pain in head. Pulse now rose to 120, and was weak; face became pale, and covered with cold perspiration; stomach grew sick; pain in head relieved, and also spasms; stripes to stomach. Half-past eleven: complains still of very great pain in head, and is very tender over epigastrium, and frequently had spasms in stomach;

face is very much blanched and cold; bleeding seems to have produced very strong effects; pulse, 100, and rather weak. Gets 3ij. of wine mulled; stripes continued. At two, is better a good deal as to head; epigastrium still very tender, and cramps occasionally returning; pulse 96, and good: calomel, gr. x., opii, gr. i., in pil.; remained tolerably quiet till about eight; became restless, and complained of pain in stomach and head: got a fœtid enema, with tincture of valerian and laudanum, this brought away two fœtid, green discharges. At eleven, pulse 102, and strong; complains of head; stomach still very tender: Calomel gr. v. every three hours, for four doses; twelve leeches to epigastrium. During the day, is much improved; epigastrium much less tender; pulse 96, and strong; head still affected. Twelve leeches to epigastrium, which is again excessively tender; epigastric tenderness relieved: calomel, gr. x., opii, gr. j. statim, to be repeated in three or four hours; pulse 102; in morning, at 10 A.M., stomach greatly relieved, tenderness much less; gets a purgative powder, continues to improve henceforward.

I have selected this case from amongst many similar in my case-book, because it is the most strongly marked I find therein. We see here that in one hour this young woman was bled to the extent of fifty-six ounces, or three pints and a half; and yet, in less than twenty-four hours after, she was obliged to have twenty-four leeches applied to the epigastrium, and was much benefited by them. Now, if we allow one

ounce of blood for each leech, this gives us eighty ounces in twenty-four hours, or five pints.

CASE 9.—James White, ætatis 16; from Mr. Kelly's, Townsend-street, is admitted at 1 A.M. on Thursday morning. At 6 P.M., yesterday, was attacked with purging and pains about navel, which have continued up to present. Was purged after admission, stool slatish colour; pain at navel occasionally very severe; feet cold, rest of body warm; pulse 108, and full; is very thirsty; no pain in head. While bleeding, was purged often, and vomited, with pain in navel; was bled to ʒxviiij: pulse reduced; pain abated: ʒij. of laudanum in cinnamon-water. Was much relieved, and fell asleep. At 6 A.M., got calomel, gr. v., opii, gr. i., in pil.; pill repeated at 9 A.M. At 10 A.M., when I again saw him, he was quite relieved, no pain anywhere; no purging since draught: pulse 126, and full; got an oil-draught at twelve, he retained this for an hour only; no evacuation. At half-past 2 P.M. pulse as before; skin hot; face flushed; does not complain of any pain: calomel and antimonial powder, aa. gr. v., in pil. ij. statim; enema purgans. At half-past 4 P.M., enema brought away some feculent matter, mixed with former of a slatish colour. Instead of antimonial powder, he got half a grain of tartar emetic in last pills. Pulse is still as strong and full as before, but eight beats less: pills repeated. At 9 P.M. he had had four or five motions of a muddy colour, a little darker than before; pulse still strong and full, but about twelve beats lower—viz., 114;

tongue white and coated; skin still hot: to get pil. hydrarg., gr. iij., calomel, gr. j. hippo, gr. j., in pil., every fourth hour. Passed no water from 6 A.M. yesterday till 5 A.M. this morning; now passes it freely. Friday, 11 A.M.: got a good night, no pain anywhere; had one scanty motion, fluid and greenish; pulse 96; heat of skin less: jalapa, ʒj., potassa bitartratis, ʒss. At 5 P.M., had three or four free motions of feculent matter, partly green and partly yellow; feels much cooler; pulse 90. Saturday, convalescent.

CASE 10.—Friday 18th: Luke Clarke, ætatis 33, at 4 o'clock P.M. to-day, was attacked with pain in stomach and bowels, and also an inclination to vomiting. At half-past 4 purging set in, and he had four or five motions: since then has had more or less pain in abdomen, but no vomiting or purging; has now a good pulse, 66: occasionally cramps in the calves of his legs: got opii tinctura ʒij in cinnamon water: next day is quite well—complains of some pain in head.

CASE 11.—Catherine Hall was admitted at 5 P.M. on Monday, 14th. She states that at 7 A.M. she was attacked with pains in head and vomiting, and shortly after general spasms set in: she has, up to admission, been harassed with dry retching and general spasms: she says she has been all day in an universal tremor, with cold feet, but that head was hot and painful; she is now in a state of high fever, with hot skin, flushed face, pulse 100, and strong. Hirudines xii. temporibus; calomel, gr. v., opii, gr. j., in pil. statim.

At 7 P.M. head not relieved; spasms return occasionally, great heat of skin, and thirst: venesection ad xxxij. : pulse brought down to 80: tongue foul: calomel, gr. x., extract cathartic gr. v. in pil. iij. statim. No further trouble with her.

CASE 12.—Catherine Murphy, ætatis 40, was admitted at 3 P.M. Thursday: at 12 o'clock yesterday was attacked with head-ach and sickness of stomach; she had much retching but no vomiting; she continued all night in this state; head-ach very severe: to-day she has been much in same state, with cramps in arms and fingers; she is a strong woman, occasionally in the habit of drinking: she has great tenderness of epigastrium. She was bled at once to xxxiv. ; bowels being constipated for the two or three last days, she got a bolus of calomel gr. v., pulv. jalap gr. x., which she retained: at 10 P.M. complains of head and stomach, latter very tender; pulse 108, and strong; gets a strong enema; at 12 has had two motions of greenish fœcal matter; complains much of head and spasms in stomach, which is excessively tender to the touch; twelve leeches to epigastrium; at 3 A.M. stomach turning; gets calomel, gr. x., opii, gr. j., in pil., to be repeated after three hours: pulse 102; refused to be bled: in morning at 10 stomach greatly relieved, tenderness much less; gets a purging powder; continues to improve during day; no further trouble.

CASE 13.—Esther Duffy, ætatis 45: admitted on Friday at 1 P.M. Yesterday was attacked with

pain in stomach, and vomiting; these, she states, continued on her all day and night till her admission at 7 A.M. this morning; she was bled on admission to $\text{̄}xiv.$; got pil. calomel and opii, which was to be repeated at 10 A.M.; and has six leeches to epigastrium; when I saw her again at half-past 10 her stomach was very irritable; complained greatly of pain in stomach and abdomen; was relieved by leeches a little; pulse 130, and strong; has been costive for several days; tongue loaded; a strong enema, and x. grs. of calomel. Stomach at half-past 12 continued very irritable; enema brought away some feculent matter of healthy colour; is still very restless, and complains of great tenderness on pressure in abdomen: pulse 136 and full; is bled to $\text{̄}xiv.$; it produced almost deliquium: appears much relieved. At 2 P.M. is much quieter; stomach still irritable. At 4 P.M. has had two motions, feculent and healthy; stomach still very irritable; abdomen tender: calomel, gr. x., in pil.; bowels well acted on; no further trouble worth mentioning: gums affected by mercury.

CASE 14.—Mary Farrell, ætatis 20: admitted Tuesday morning at 2 A.M. Was attacked yesterday morning with vomiting, purging, and cramps in fingers: she states that she continued all yesterday affected in same way, and was very cold and low; she was bled by a doctor this night before admission, and got medicine, which she rejected: pulse now quick; pain in head; stomach irritable; got pil. calomel and opii iij., i. quartis horis sumend.; hirudines vj. tem-

poribus. Tuesday, 5 P.M., stomach very irritable; bowels not moved; complains much of pain in right ear, and same side of head; pulse regular, but weak: pil. hydrarg., gr. iij., calomel, gr. ij., opii, gr. $\frac{1}{2}$, in pil.; hirudines vj. tempori dextro; haustus effervescentes. Wednesday morning, bowels moved; mouth affected by pills; convalescent.

CASE 15.—Mary Tilbury, age omitted, sent from Dame Court by Dr. M'Cready. Was attacked at 9 Sunday evening with sudden pain in stomach, and vomiting; she states that pain was so severe that she "ploughed the ground;" she has had very severe cramps in stomach and lower extremities up to admission (hour of admission omitted in the unavoidable hurry); has had since constant retching; occasional cramps in stomach and lower limbs; pulse 120, full; skin hot; face flushed: bled to $\text{̄}xxiv.$; calomel c. opio. Case not further noted.

CASE 16.—Margot Castello, ætatis 30, sent in from 20, Ship-street, by surgeon Mitchel. At 12 to-day (Sunday) was attacked with lightness in head and sickness of stomach; had tremor frequently; was purged three or four times from two till four; seems frightened; has pulse 96, and strong. Case not further noted.

CASE 17.—Anne Higgins (age omitted) was dismissed about a week since from Grange Gorman, after a week's illness; she has been since receiving daily allowance from hospital. Last night at 12 she was attacked with retching, which lasted all night, but she

threw up nothing; retching stopped for awhile this morning, but has returned within last hour: she says bowels have not been open for last ten days; pulse 110, and full. Case not further noted.

I at first considered such cases, cases of cholera which bear out Mr. Annesly's theory, but after a time I was firmly convinced they were not cholera at all, but evidently severe gastric inflammation, modified perhaps both by the prevailing epidemic and the universal alarm abroad; such cases required action, and bore decided venesections, together with cooling aperients or purgatives, and if the mercury touched the gums so much the better. These cases occurred principally in young and strong women, who had neglected the bowels; whereas true cholera commences, as a general rule, with an easy, insidious, copious diarrhœa, which, while it is undermining the patient's strength, deceives him by its not being attended with pain, at least none worth speaking of. That many of these sthenic cases were also hysterical I have no doubt.

That cholera did modify other diseases, I had a tolerably convincing proof in the type of scarlatina prevalent about 1835, or 1836. When I called one morning to visit a fine boy, whom I had left the previous evening going on favourably, with the eruption generally developing itself, I was shocked the moment I entered the room to see before me the sunk eyes and collapsed features of Asiatic cholera: upon inquiry, I ascertained that the boy's bowels had been going all night. I at once took measures to arrest the

discharges; but when this point was gained he became hydrocephalic, and died of effusion into the head the following night. I shall add to these four or five promiscuous cases.

CASE 18.—Bridget Oalfield, ætatis 26, was admitted on Tuesday, at 10 A.M.; at 12, yesterday, was attacked with sickness of stomach, and purging; these continued at intervals till 5 P.M. when they became particularly bad, accompanied with cramps in stomach and lower extremes—she continued to be harassed from 5 P.M. all evening and night, up to admission this morning at half-past 9 A.M.; she was then in collapse. Pulse gone, feet cold, hands cold, and inclined to blue; tongue cold and white, eyes sunk, and half-closed—dark areola forming; is quite sunk and desponding; gets mustard emetic: rejects it almost at once. Pulse a little roused; 3ss. of cajeput oil; in 20 minutes more another 3ss.; shortly after this, vomits. Pulse perceptible; has no cramps, except a twitch in fingers; lies easy; in twenty minutes gets 3ss. of cajeput oil, and calomel, gr. x., opii, gr. iss. Pulse going; has a cataplasm of mustard to stomach; in twenty minutes more pulse going, and herself not rallying; gets 3ij. of cajeput: this is at ten minutes of 11 A.M.; is sleeping after it; face covered with cold perspiration; hands becoming blue. Cajeput not producing any effect was discontinued, and brandy draught with æther given; tosses about in a restless manner, quarter past eleven; quarter to twelve, no pulse; hands decidedly blue; is tossing about; gets and retains

brandy draught; at twelve, enema sinapis. She had but one stool since admission, and that was decidedly yellow mucus; passed no urine since commencement. Stomach now and then rejects a little; to get brandy draught zj. every twenty minutes. I do not expect any reaction; at half-past twelve no improvement; stomach more irritable; at one gets calomel, gr. x., camphor, gr. v., opii, gr. j.; rejects them; cramps in toes very severe; gets infusion of mint and laudanum: rejects it. She continues quiet, but chest heaves a good deal; at a quarter to three heaving of chest increases; at three is evidently dying.

CASE 19.—John Wickam, ætatis 43, a labourer, has been for last three or four days annoyed with an irregular purging. At 2 P.M., last night, he was attacked with vomiting and purging of whey-like matter; cramps set in about three, in the legs and thighs: these continued till about eight this morning, when they abated. He was admitted at half-past 9 A.M. this morning, Wednesday, in the stage of collapse; no pulse, hands blue, feet cold, tongue cold and white, eyes sunk, and dark areola; breath cold. He complained two or three times of cramps in lower extremities, and passed two or three whey-like motions; got at once stimulating draught, with laudanum and æther. About zviij. of blood were taken, no more could be got; no development of pulse. Mustard cataplasm to stomach; stomach not at all irritable; draught repeated in half-an hour; got calomel c. opio; is restless and inclined to toss, though pulse is not perceptible; action of heart

is very rapid and tumultuous. At a quarter to eleven got two pills containing four of calomel, two of antimonial powder, and two of hippo; gets beef tea, sulph. of quinine, and brandy mixture. Stomach retains all; countenance looks well, and has done so from beginning; no ghastly appearance about it. At twelve lies quiet, but chest is beginning to heave; on my return at two, is dead.

CASE 20.—John Byrne, ætatis 58, has had diarrhœa for the last eight days; at five, yesterday, after dinner, stomach turned, and purging increased; that continued till ten, when cramps in legs set in; all these were severe during night, and to day, Friday, up to admission at 3 P.M. He is now with extremities cold, but not blue; pulse 114, weak; voice whispering; tongue coated, and cold; eyes sunk a good deal, with dark areola; cramps in legs very severe; seems greatly exhausted; gets vini rubri, ℥iij., aquæ vitæ, ℥j., opii tinctura, ʒss. in divided doses, and retains it. He got a great quantity of wine, and gruel, quinine, &c., and retained all: also nutritive enemata; during Friday night and Saturday he appeared for a time stationary, or even rather improving; but pulse did not mend; in fact, he appeared a case, like several others, in which an elderly person having lapsed into the collapse of cholera—its progress is slow, but most certainly fatal. On Saturday night he became gradually weaker, though still taking and retaining wine and nourishment. [He died on Sunday morning from effusion into chest.

CASE 21.—Alitia Holligan, ætatis 55, admitted on Wednesday, was attacked at 1 P.M. with pain in head, which passed away; at 3 P.M. vomiting came on, and lasted with cramps in lower extremities for two hours. She then remained well till 11 P.M., when pain in head, and vomiting, again returned without cramp. She states that what she first discharged from stomach was green, and that at 11 P.M. it was yellow, like yelk of egg: this second attack lasted for about an hour, when she fell asleep, and slept till 5 A.M. At 1 P.M., yesterday, she felt stomach swell, and pain in it set in; she says, that though these continued, she went on working till night, when Dr. M'Cready gave her four pills, and an oil draught. She went to bed, and about twelve was attacked with vomiting of yellow matter, purging and cramp in lower extremities—the two first lasted about one hour, but cramps continued all night, and were rather severe; on her admission at 8 A.M., this morning, she got calomel, gr. ij., pil. hydrarg., gr. iij., opii, gr. iss. She was well rubbed, and is now, at 10 P.M., quite easy as to cramp; but complains of great pain over stomach; 12 leeches to stomach. Pil. calomel c. opio, quartis horis. Not much further trouble.

CASE 22.—James Flanigan, ætatis 40, a carpenter, admitted on Sunday at half-past 1 A.M., was quite well up to 4 P.M. yesterday, when he was attacked with purging, which returned frequently; he continued at work till seven. At 8 P.M. vomiting came on, and both continued very severe till twelve at

night; cramps in toes set in with vomiting, and gradually extended up to abdomen: they were very severe till about two hours since. At present he is not suffering from anything except an occasional cramp in leg; his pulse is gone; hands cold and blue; feet cold; tongue cold and white; eye sunk with the black circle; voice whispering: gets mustard emetic; rejects it; mustard cataplasm to stomach; $\bar{3}$ iij. of brandy to $\bar{3}$ v. of water, with ginger and sugar; retained almost entirely; given in three portions. Half-past 2 P.M.: pulse becoming developed, is beginning to complain of cataplasm; gets calomel, $\bar{3}$ j., opii, gr. j.; former brandy mixture repeated with $\bar{3}$ iij. of æther, to be taken occasionally; he calls frequently for drink, and retains it; he lies for most part very quiet; eyes half closed; breath cold. Instead of continuing former mixture, I have given $\bar{3}$ ss. of cajeput oil, and in twenty minutes after, $\bar{3}$ j. At 3 A.M., pulse not mending, calls often for cold water; is very manageable; stomach turned shortly after second dose of cajeput oil; in quarter of an hour after, gave him $\bar{3}$ j. again; he retained it; in quarter of an hour repeated the dose; retained last two doses; is restless, and tosses much. Four A.M.: pulse not improving, is hardly perceptible; gets $\bar{3}$ ij. of cajeput oil; is constantly calling for cold water; stomach retains all. At a quarter past 4 A.M. pulse not improved; is sleeping; cajeput discontinued; gets one of three pills containing each $6\frac{1}{3}$ grs. of calomel, 2-3rd gr. of opium, to be repeated every third hour;

calls often for cold water. This case held out for eight or nine hours longer, and then suddenly sank.

I think I have now drawn sufficiently on my case-book; perhaps many may be of opinion that I might have taken leave of it long before, but I judge of most persons by myself; and, in my opinion, the most valuable portion of any work, small or great, is that devoted to a faithful record of cases. These, though dead, will yet speak to every attentive and discerning mind; and, however much importance the reader may attach to the views or comments of the writer, he will yet be disposed, more or less, to arrive at his own conclusions. I shall not endeavour to prejudice my reader by any comments of mine; let these twenty-two cases speak for themselves. One remark I must not omit—it is this; let no one for a moment imagine that vomiting is salutary, whether produced by a mustard or any other emetic; the effort may cause a temporary development of the pulse, but the subsequent exhaustion will more than compensate for this in the wrong way. I should as soon expect that shaking a patient would improve his strength, or that driving the rowels of a pair of spurs into the sides of a jaded horse would add to his physical powers.

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PART I.

ORIGINAL COMMUNICATION.

ART. I. *On the Progress of Asiatic Cholera.* By
 ROBERT J. GRAVES, M.D., continued from p. 316,
 Vol. VI.

SINCE the publication of my last article on this subject, Cholera has reached England; and its arrival has been attended by circumstances, which make me quite sure that the opinion, so positively announced, both here and in London, by the Board of Health, and the College of Physicians, rests on a very doubtful foundation. Before I proceed, however, to arraign this opinion, it may be well to recapitulate. The Board of Health of Dublin have published a circular, in which we find this passage—"The Commissioners of Health are anxious to impress upon all persons the important difference that exists between cholera and fever, with respect to the mode of propagation of these epidemic diseases. Fever, it is well known, is highly contagious, and easily propagated from one individual to another; while all experience shows, that cholera is rarely, if ever, contagious.

Consequently, the separation of the sick from the healthy, a measure so essential in checking the spread of fever, is not required in cholera; and the friends and relatives of those attacked with cholera may be under no apprehension of catching the disease, and need not be deterred from affording to the sick, in their own dwellings, every needful assistance and attention. The Commissioners of Health, after mature consideration, do not advise that cholera should be met by an extended system of hospital accommodation, such as is needful in epidemics of fever; but recommend, in preference, a general system of prompt and efficient dispensary relief. The non-contagious character of cholera fortunately removes all objection to the receiving of persons suffering under the disease, into the ordinary hospitals of the country, whether infirmaries or fever-hospitals, all of which the Commissioners of Health advise should be open, and in readiness to receive destitute persons in cholera." In the circular issued by the Royal College of Physicians, in London, the following paragraph occurs: "Cholera appears to have been rarely communicated by personal intercourse; and all attempts to stay its progress by cordons and quarantine have failed. From these circumstances the committee, without expressing any positive opinion with respect to its contagious or non-contagious nature, agree in drawing this practical conclusion—that in a district where cholera prevails, no appreciable increase of danger is incurred by ministering to persons affected with it, and no safety

afforded to the community by the isolation of the sick.”

“I may here remark that the committee of the Royal College of Physicians in London, have left themselves open to the charge of inconsistency; for, while they do not express any positive opinion with respect to the contagious or non-contagious nature of cholera, they recommend measures which can only be justified *by a very positive opinion indeed, that the disease is not contagious.* It was unwise to preface the practical adoption of an opinion by an expressed doubt of its soundness.” I cannot help remarking here, that Dr. Graves’ philippic against the London College of Physicians appears to me very unfair, and equally groundless. The “practical conclusion” drawn by the committee, Dr. Graves says, “can only be justified by a very positive opinion indeed, viz., that the disease is not contagious.” Now it appears perfectly manifest to me, that the “practical conclusion” drawn by the London committee—viz., “that in a district where cholera prevails, no appreciable increase of danger is incurred by ministering to persons affected with it, and no safety afforded to the community by the isolation of the sick,” is abundantly borne out, and justified by the statement previously made in the circular issued by the Royal College of Physicians in London, namely—“Cholera appears to have been very rarely communicated by personal intercourse, and all attempts to stay its progress by cordons and quarantine have failed.” Have we not in this statement, unequivocally and positively made, strong facts for the practical con-

clusion drawn, without at all introducing the question of the contagious or non-contagious nature of cholera? If no precautions by cordons or quarantine have succeeded in staying its progress, and that cholera appears to have been very rarely communicated by personal intercourse, why may not the London College, why may not *any* college, arrive at the practical conclusion above stated? If I know that either infection or epidemic influence will surely reach me, whether I take precautions or not, I think I may, for all practical purposes, lay aside the trouble and inconveniences of taking any precautions, and might with much more practical benefit to myself and family, set about such a course and such measures, as would render me best able, when I was assailed by the foe, to combat him.

Dr. Graves says, "It was unwise to preface the practical adoption of an opinion by an expressed doubt of its soundness." What the practical opinion adopted by the London College was we have stated above, and I really cannot perceive where "*it expresses* any doubt of its soundness;" Dr. Graves does, but certainly not the London College.

"Thus," says Dr. Graves, "I find arrayed against my views two bodies, to whose authority the public must attach great importance. But being persuaded that I am upholding the cause of truth against error, I am by no means discouraged, and feel myself bound by a sense of duty to persevere." Dr. Graves is quite right in saying, "the public must attach great im-

portance to the authority of the two bodies arrayed against his views;" it would be strange, passing strange, were it not so; however, his persuasion of being in the right prevents him from being discouraged, and he is determined to die game.

After some further discussion on the contagious nature of cholera, Dr. Graves remarks, "But, alas! unconsciously I find myself falling into a serious error. I have recommended *truth*, and by my reasoning have endeavoured to uphold it; but what chance can there be of truth prevailing, or of error being dissipated, when the great luminary which enlightens the mind of England, and serves as a beacon to warn us of coming dangers, so far presumes upon the ignorance and credulity of its readers as to dare to print the following puerilities. The *Times* of October 17th, in its leading article, thus proceeds:—'The disorder has chiefly appeared at Woolwich, but not in Woolwich generally—nor in the river generally—nor in the convict ships generally, though they all lie so close together; nor in the *Justitia* convict-ship generally; nor in the lower deck generally—but on the starboard side and stern thereof, particularly and exclusively; that part being exactly opposite the mouth of a sewer which empties itself into the Thames.' I must confess," says Dr. Graves, "that it rather puzzles me to make out how the '*starboard side, and the stern thereof,*' can be called *that part*, seeing that they form two very different parts of a ship; neither can I understand how these two dif-

ferent parts, one of which is at right angles with the other, can be *exactly* opposite the mouth of a sewer; but waiving this inaccuracy of language on the plea that the Thunderer, as when erst enamoured of *Europa*, still seeks gratification by making himself a —— Bull ——, it appears, according to this new philosophy, that a malign atmospheric influence arrived in the Thames, but of so thin, curved, and laminated a nature, that it touched not any of the numerous ships that lie *so close together*, but winding itself amongst them, and leaving them unscathed, it poured forth itself into this unfortunate sewer, from which it issued again forthwith, directed against the starboard side, and the stern of the fated vessel.”

“ But, in fact, (says Dr. Graves, in another part,) the subsequent course of events has completely overthrown the hypothesis of the *Times*, and has altogether exculpated the accused sewer from the guilt of having *generated* spasmodic cholera; for the hulk *Justitia* having been removed from the suspected locality, it was at last found necessary, on account of the continued spread of the disease, to remove the convicts, but not until twelve had died, and thirty-seven sickened: and then we find suspicion transferred to the hulk itself, and forthwith it was ordered to be broken up! I have no returns which enable me to state the precise number of convicts who afterwards were attacked on board the *Unité*; (five actually died in three days, from 7th to 11th October.) Neither can I say how many took the disease in the *Hebe* and

Sulphur receiving ships, to which they had been transferred from the *Justitia*; but, in the Dreadnought hospital-ship several died. I should like to know whether a pernicious sewer was opposite to each of these ships; but, I rather suspect that even the sewers had now fallen into disrepute with the authorities, for in the official returns of October 30th, we find it stated, 'Almost all the cases of deaths, and even attacks amongst the convicts, have occurred amongst those who have been subjected to punishments or confinements in the black-hole.'

"After this announcement we must of course suppose that all such punishments were for the time abolished; and then, indeed, what between a liberal allowance of anti-choleric tobacco, and a freedom from choleric punishment, it might be well said,

'O felices *convicti* sua si bona Norint!'

The Doctor is in a jocose and witty mood in his concluding remarks, when he thinks all is smack smooth in his favour. I wish he had been in a similar mood, not the imperative, positive, hair-splitting mood, with which he commences. "The *Times* dares to print the following puerilities." I should be glad to learn from Dr. Graves, does he deny that these puerilities are facts? Does he mean to assert that the *Times* has wilfully stated a falsehood? If so, the term 'puerilities' is altogether too mild a one. If he does not deny that these statements of the *Times* are facts, then I beg to say, Dr. Graves' observations are

as inapplicable to the Editor of the *Times*, as they are unbecoming himself. I designated one of Dr. Graves' moods, the hair-splitting; this is a mood I particularly dislike in any man, especially when he is, or ought to be, serious, in the logical discussion of a serious question; "*Dulce est desipere in loco*" I fully admit in its fullest amplitude, but I consider Dr. Graves' hair-splitting special pleading very *dislocated* indeed, just where he introduces it, about the "starboard side and stern." He ought, in my opinion, to have been "more to the fore," and if he had any valid objection, to have met it "face to face" like a man. It is an old saying, that "Those who live in glass houses should not throw stones." I do not think, for instance, Dr. Graves is quite "at *right* angles" himself, when he says that the Thunderer *still seeks* Europa; if so, he, the Thunderer, must be a most persevering lover. "Neither can I understand how these two different parts (viz., starboard side and stern,) *can be* exactly opposite the mouth of a sewer." Neither can I. I can conceive that, for all practical purposes, they might *have been*, but most certainly neither "starboard nor stern" of the *Justitia can be* now opposite a, or any sewer, inasmuch as Dr. Graves assures us, she was long since ordered to "be broken up." I fear, very much, Dr. Graves' Bull may not prove so captivating to modern as the Thunderer's did to ancient Europa.

"Sed tamen *amoto*, quæramus *seria ludo*."

Dr. Graves proceeds to remark, "that the subse-

quent course of events has completely overthrown the hypothesis of the *Times*, and has altogether exculpated the accused sewer from the guilt of having *generated* spasmodic cholera." Now, for aught I know to the contrary, the *Times* may have *meant* this, but from Dr. Graves' showing, I should never conclude it. Were the sewers, and dykes, and cess-pools, which encircled the "Tooting Farm" supposed to have *generated* cholera? I should think not; but, whatever others may think on the subject, I have no doubt that the *malaria* thence emanating, and there generated, had previously reduced the children's constitutions to such a low ebb, that the epidemic influence of cholera (how, or where generated, I shall leave to Dr. Graves to determine,) found in them easy and choice victims. In like manner "punishments or confinements in the black hole" will produce similar results. It would be perfectly impossible for one of my moderate powers, both physical and mental, to endeavour to keep pace with the "hyper-Augean" talents of Dr. Graves, (by the by, I would remind Dr. Graves it was Hercules who *removed*, Augeas who *generated* nuisances,) and follow him in his other planetary movements. I shall now only express my regret that he should have any objection to the useful exertions of "Sanitary volunteers," and reserve a few remaining observations for his "Postscript on the diffusion of Cholera." The Postscript generally contains the pith of every letter.

When Dr. Graves and his coadjutors shall have

realized their idol of cholera contagion, I will allow them to exclaim, with the Egyptians of old, “*Ευρηκαμεν.*”

MEDICAL MISCELLANY.

Postscript to Dr. GRAVES' Paper on the Diffusion of Cholera, in the present number.—See pages 1 to 39.

“ It gives me much pleasure to find that, since the preceding observations were written, suitable measures are at length being taken for the treatment of cholera patients in this city, under the direction of the Board of Health, and with the co-operation of the Boards of Guardians. Several hospitals will, I am told, be ready for the reception and treatment of poor patients attacked by the disease; and ample accommodation will be provided for those who have the misfortune to labour under the epidemic. The announcement of the fact, that when cholera arrives in this city (which, I fear, it will do at no very distant date,) it will not find us altogether unprepared, will be hailed with pleasure by every humane person who has the interest of his fellow-citizens at heart. I feel bound to acknowledge that the public owe a deep debt of gratitude to the Sanitary Committee, and to its respected chairman, Sir Edward Borough, in particular, for availing themselves of every means, which the law enabled them to employ, in effecting this desirable result. I have no doubt, likewise, that

the Board of Health have conscientiously discharged the practical duties imposed on them by the legislature; I quite willingly accord to them all the praise they are entitled to on that score, but I cannot retract a single word of what I have already said—(nothing like consistency)—concerning the absurd position in which the Boards of Health, both in Dublin and in London, have placed themselves, by their first ‘Circular Manifesto;’ and in which they ventured to assert, in an authoritative manner, that ‘all experience’ proved that cholera was not contagious, and that there was no danger to persons coming in contact with individuals labouring under the disease; and, consequently, no objection to admitting cholera patients into general hospitals. The experience gained in the former epidemic I have already dwelt on; and I now wish to add the details of some facts observed during the present epidemic, which appear to be decisive of the question, and consequently fatal to all claims the Board of Health here can have to be guides, either of the public or the profession on this vitally important question.

“The first testimony to which I wish to direct the attention of my readers is taken from the statistics of the cholera hospital in Surgeon-square, Edinburgh, by William Robertson, M.D., a gentleman well known as an accurate observer and talented physician. The paper to which I advert, is published in the January number of the *Monthly Journal, and Retrospect of the Medical Sciences*. Dr. Robertson, at pp. 457-8,

records the following facts:—‘ With every deference for the opinion held by many members of the profession, and promulgated by the London Board of Health, I feel constrained to admit the evidence in favour of the contagious properties of cholera; or, at least, without insisting upon the literal application of the term contagion, to believe that there is something in the presence of the sick likely to induce the same disease in the sound.

“ Other two cases have occurred to me, which seem interesting in connexion with this subject. About the 20th of November, a young woman was suddenly seized with illness in the street; she complained of pain in the abdomen, and was immediately sent by some of the passers by into the cholera hospital. On admission, there was no evidence of cholera, but the patient was in labour, and in an hour or two gave birth to a foetus in the third month. After four days’ residence in the hospital, the patient was, at her own request, dismissed. She was, a few days afterwards, re-admitted, with the unequivocal symptoms of the disease, and stated that the premonitory diarrhœa had manifested itself two days after her dismissal, while she was an inmate of the House of Refuge: the patient died after a few days’ illness.” As I suspected, this postscript is very pithy indeed, and pregnant, if not with the contagion of cholera, at all events with the infection of cholera. When the apple of discord was thrown amongst the goddesses, it had inscribed on it the words “ ἡ καλὴ λαβετο.” As this

contest waxes warm amongst the *magnates* of the profession, men considered *gods* when I was a student, “—— tantæ-ne animis *cælestibus* iræ?” I shall adopt a similar motto, and say, ὁ ἀξιός λαβετο, leaving it to a discerning public to award the prize.

Dr. Graves “will not retract a single word of what he has already said concerning the *absurd position* in which the Boards of Health, both in Dublin and in London, have placed themselves.” The Doctor should bear in mind, that there is a wide difference between a man’s being consistently firm, and obstinately positive; when “*on wisdom* we build *resolve*, it is a column of true majesty in man;” but is it wise of Dr. Graves to assume that *he* is right and the *two Boards* of Health wrong, and on this assumption resolve to vituperate the Boards and congratulate himself? I should think not. The question of contagion in cholera is “*adhuc sub judice*,” and the maxim of “*festina lente*” has been completely forgotten by the Doctor. No man has a better right than Dr. Graves to entertain and maintain his opinion on any point, but he should remember that he is not infallible; and, unless this infallibility on his part be admitted, he has no right to say, “the Boards of Health, both in Dublin and in London, have placed themselves in an *absurd position*, by venturing to assert that cholera was not contagious.” Now it so happens, in the first place, that the Dublin Board merely says, that “all experience shows that cholera is *rarely*, if *ever*, contagious;” a simple statement, founded on the expe-

rience of others, no positive assertion given at venture on their own parts; and, in the second, the circular of the College of Physicians in London merely states, that "cholera appears to have been rarely communicated by personal intercourse." From these circumstances, "the committee, without expressing any *positive opinion* with respect to its contagious or non-contagious nature," &c. &c. Even Dr. Graves himself remarks on this: "The Royal College of Physicians in London have left themselves open to the charge of inconsistency; for, *while they do not express any positive opinion with respect to the contagious or non-contagious nature of cholera*," &c. &c. I should like now to be informed *who* has been guilty here, firstly, of a mis-statement; and, secondly, of both a mis-statement and an inconsistency. Dr. Robertson, of Edinburgh, says, "I feel constrained to admit the evidence in favour of the contagious properties of cholera, or, at least, without insisting upon the literal application of the term contagion, to believe that there is *something* in the presence of the sick likely to induce the same disease in the sound." Had Dr. Robertson felt constrained to omit his testimony in favour of the contagious properties of cholera, and restricted himself to the belief, "that there is *something* in the presence of the sick likely to produce the same disease in the sound;" he would, in my opinion, have hit the nail on the head, or, to express myself more classically, I should have said of him, "*rem acu tetigit*." What this *something* is, I have

already undertaken to stand sponsor for, and named it *Choleraphobia*. In Dr. Robertson's case of the young woman which I have quoted, I am reminded of a most important fact. We had several such cases in Townsend-street Hospital, and, to the best of my memory, they proved invariably fatal: their history was simply this: after being in cholera a longer or shorter time, they were confined of a dead fœtus or child; and the twofold shock of cholera and labour, seemed too much for even the youngest woman. A pregnant woman should never be admitted into a cholera hospital, unless actually in cholera. Were I certain of finding Dr. Graves in his usually jocular humour, I would tell him, his laborious efforts to prove cholera contagious have proved, like Dr. Robertson's case of the young woman, *an abortion*; and that, though "*Parturiunt montes (graves) nascetur ridiculus mus.*" Without meaning to support Dr. Adair Crawford's views about the auguries derivable from a flight of crows in St. Petersburg, Dr. Graves avows "so much respect for the wisdom of crows," that I am almost tempted to designate him "*Senex a cornice secundus.*"

I shall now advert to a letter of SURGEON KIRBY'S, published in the *Saunders' News Letter*, of Thursday, January 18, 1849:—"For the use of the public.—Fellow Citizens,—Cholera has reached our coast: if

report speaks truly, it is already within our walls. Let no man be too confident of exemption. All are liable to suffer from this unsparing pestilence, so that it behoves each and all to be prepared to meet and contend with an attack, by which the rich and the poor, the young and the old, the strong and the feeble, the naked and the clothed, the well-fed and the starving, the temperate and the intemperate, the diseased and the healthy, may all be rapidly subdued under the withering hand of death." A flowery, eloquent, but awful exordium, this! well calculated to strike terror and dismay into the stoutest heart, and "Let no man be too confident of exemption." Indeed, I do not think any man, or woman either, has been left out in this most comprehensive enumeration: all I can say is, the approaching epidemic must be much more indiscriminate in its attacks, than its predecessor was, for not many "of the well fed and well clothed, of the strong and temperate, the rich and healthy" were included amongst its victims; it was, as a general rule, confined to exactly the very opposite classes, and though exceptions did occur, they only tended to establish the general rule, for the strong are not always temperate, nor are the rich always healthy. I consider Mr. Kirby a very great alarmist, and very likely to do an infinity of mischief amongst his immediate circle of acquaintances, and elsewhere too, by disseminating the seeds of cholera, not in the form of infection or contagion, but in that of choleraphobia, a most prolific parent. What does Mr. Kirby mean by "questioning the in-

tentions of persons opposed to this, his view?" (viz., that cholera is contagious); does he mean to imply that their object is to diffuse cholera, and thus make patients for themselves? I, for one, beg to assure him I am not guilty of the *hard* impeachment, and I think I might undertake to put in a similar plea for every medical man who has written in support of my views. I consider Mr. Kirby owes it to the profession, ay, and himself too, to tell us in another letter "to the public" what he does mean. Meanwhile, I would advise him to take a broiled chop or steak instead of "*fish*," even though "grilled with salt and pepper," and (as I understand he is advanced in years) to try a tumbler of XX, or to add a little brandy to his water, even though "pure and fresh;" this he probably does already, although he says nothing about it. Once more, let him "after dinner sit awhile," and, if he eat supper, he may then, if he please, "walk a mile;" exercise is a very good "excitant" of digestion, but not just after a serious meal like dinner.—*Vide* Abernethy. "The Sanitary Association is at issue with the ex-cathedrâ dictum of constituted authority"—"Cholera is a contagious disease; during the two former invasions I was most actively engaged, and I formed the opinion I have expressed upon facts, which I then repeatedly observed." What facts? Where, or how ascertained? Who pronounces an ex-cathedrâ dictum when he says "cholera is a contagious disease?" and then leaves us to his *dictum* to ground our belief upon? I conclude both Dr.

Graves and Mr. Kirby are in high spirits, from a paragraph which appeared in a recent number of the *Evening Packet*, headed—"Cholera. Remarkable instance of contagion. Three men living at some distance from each other were obliged to attend the assizes at Monaghan, from which place they returned to their respective homes last Friday or Saturday, a distance of about thirteen miles, and on Tuesday morning the last of the three died of what appeared to be cholera. 'I inquired,' says our informant, 'about them, and found they all lodged in the same house at Monaghan, where I understand some persons had died of cholera immediately previous to their going there. I believe they did not apply to any regular medical practitioner, and consequently did not receive proper treatment.' One fact being worth a thousand assertions, we beg leave to draw the attention of the Non-Contagionist Board of Health to the manner in which the disease originated in Limerick. Six foreign sailors were the first attacked, five died, and every individual in the house where they lodged was subsequently attacked, the disease proving fatal in every instance." The *Evening Packet* is quite right in saying "one fact is worth a thousand assertions," but does the editor imagine we will take him for a surgeon Kirby, and swallow his *ipse dixit*? Who told him all this? and upon whose or what authority does he state it? But admitting every word of it to be true, what does it all amount to? Why simply this, that six foreign sailors were the first attacked in Limerick. Does it

then follow, that these six sailors *imported* infection? certainly not. Were the first six persons attacked in Monaghan, six foreign sailors? I guess not, as Jonathan would say, but I will tell the editor what I suspect; these six sailors were six of the hardest going men, in every sense of the word, in Limerick, and the individuals living in the same house were, every one of them, much of the same stamp; the locality in which they lodged, too, was low, and damp, and dirty, and when the unclean spirit of the epidemic arrived in Limerick, it at once took up its abode with those who had convenient lodgings, filthy, full, and “garnished.”

The above extract from the *Packet* appeared in the *Saunders* of Friday, 16th of March.

Let us now examine evidence given in another part of the same *Saunders*. Under the head of London news I find the following paragraph:—“Norway, Constantinia, March 2nd. That scourge, the cholera, has commenced at Bergen, making serious havoc among the *poor fishermen* on the coast, and in the Fiords. On some of the farms, whole families have been swept off. In the city 901 cases have already occurred, of which 501 have been fatal, and upwards of ten are occurring daily. This is a large number out of a population not exceeding 24,000. The papers state, that at Esperan *the fishermen* are dying so fast that they have been compelled to carry the bodies to an uninhabited islet, and merely cover them with a few planks, where they are now rotting and being devoured by birds of

prey. We know what a Norway fisherman's life is, and how susceptible of attack from any kind of epidemic." I find also in *Saunders* of the 17th of March, this evidence — "Some mild cases have recently occurred in Paris amongst *the unprovided poor* of the Port St. Denis." We remember well ourselves how fatal the epidemic was in Sligo, in the year 1832, where the principal food of the poor, both in the suburbs and along the coast, is fish, and where their wretched hovels, which mine own eyes witnessed, are but a poor protection indeed against the rude blasts of the broad Atlantic; they may be truly said to be "Repelling winter blasts with mud and straw." Of the hovels on the Donegal coast I was also an eye-witness: you will see the roofs of most composed of about four inches of straw, bound down by cross ropes of the same material, to prevent their being blown away of a stormy night. They are no more to be compared to the substantial warm roofs of our southern cabins than "chalk is to cheese;" there is an aspect too of squalid want, as you look into them, which makes the heart sick.

Let me ask Mr. Kirby how all this agrees with his eloquent, but alarming exordium? "An attack by which the rich and the poor, the young and the old, the strong and the feeble, the naked and the clothed, the well fed and the starving, the temperate and the intemperate, the diseased and the healthy, may *all* be rapidly subdued under the withering hand of death." How will he and Dr. Graves account for the fact

mentioned by me in my Address to the Board of Health? namely, that many of the very worst cases were brought into Townsend-street from Leeson-lane, but upon inquiry I have not been able to learn that *any* cases occurred amongst the inhabitants of Leeson-street; was it because, to quote Dr. Graves' own words, "a malign atmospheric influence arrived (at one end of Leeson-street) but of so thin, curved, and laminated a nature that it touched not any of the numerous (houses) that lie so close together, but winding itself amongst them, and leaving them unscathed, it poured itself into this unfortunate sewer (this sink of iniquity, Leeson-lane)"? I verily and truly believe such was the fact, practically speaking; and that, in this respect, I may congratulate Dr. Graves for his graphic description of what actually occurred. I cannot, of course, undertake to assert that the atmospheric something, commonly called cholera, is "of a *thin, curved, and laminated nature*," because I never saw it (perhaps Dr. Graves did), but I will assert positively, that my full conviction is (and this conviction grounded upon an experience in cholera, somewhat more extended than Dr. Graves's) that its course was exactly that described by Dr. Graves; hovering to and fro, and winding its flight here and there, like a "destroying angel," it stooped upon this unfortunate sink, where doors and windows ever were open to let it enter, and where disease, poverty, and profligacy, "*Tria juncta in uno*," reigned triumphant.

How else will Dr. Graves account for, or explain the facts mentioned by me in my Address to the Board of Health, viz., that I never knew a nurse take cholera, though when going round the wards at midnight I often found them, the nurses, fast asleep from sheer exhaustion, across the legs of dead and dying? I never knew a Sister of Charity take cholera, though they used to sit, for hours daily, breathing the very breath of the patients. I never knew a Roman Catholic clergyman take cholera, though they were liable to be called up at all hours, and never disobeyed the call. I never knew a medical man take cholera, though there were at one time eight or nine employed, whose duties kept them more or less in constant contact with the sick. When Dr. Graves shall have satisfactorily explained this enigma by his dogma of contagion, then, but not till then, I will admit the contagion of cholera.

“Davus sum non Œdipus.”

The doctrine of the contagious or non-contagious character of cholera is one vitally important, one to be determined by a cool, dispassionate, logical examination of facts, laying aside everything which savours of the imperative, positive, hair-splitting animus—cholera either is, or is not, contagious; and which of these two propositions is the true one must be decided, not by what Dr. Graves may think or assert, but by what facts establish.

P.S.—I perceive by the *Warder* of Saturday night

that the mortality in Limerick has been awful indeed, 54 deaths out of 60 cases; but that the cases occurred principally *along the quays*; this is exactly what I should expect, *à priori*; situations damp and filthy, containing a population, whose general health is much below par, and whose habits of dissipation are much above it, are certain to be those first attacked, and the worst constitutions are the first, because the easiest victims.

When we first commenced operations in Townsend-street, we were all under the full conviction that cholera was contagious, like typhus fever, and accordingly we made use of every precaution which prudence dictated, or circumstances would admit of, such as the strictest observance of diet, carefully avoiding all cholera food and drink, such as salmon, cider, salad, &c. The wards were carefully supplied with disinfecting agents of all kinds; in fact, everything we saw, and smelt, and ate, reminded us continually that we were in the midst of contagion. After awhile, however, impressions so often repeated began to produce less and less susceptibility on our parts, and articles of diet previously proscribed and abhorred, began imperceptibly to make their way to the table, and at first to be tasted, and at last devoured; thus, after the first month, it was a common thing to see cold meat and *salad*, a very nice *salmon*, and, together with Guinness's Porter, (as the weather was very warm,) an equal proportion of Devonshire cider, "warranted good;" certainly it

never disagreed with me. I do not mean by these observations, however, to imply that *all* persons may, with equal impunity, follow a similar example. To many, such a line of proceeding would, in a cholera district, be attended by ruinous consequences — it would excite diarrhœa, and this diarrhœa might end in cholera. I mention these things merely to show that, after the first month, we medical men in Townsend-street used no precautions whatever, for the same changes gradually befel the disinfecting agents. I remember well being greatly alarmed, about the end of the first month, when, going round the wards shortly after breakfast, I came to a blue patient, not long admitted, and wishing to ascertain the temperature of his feet, I turned up the bed-clothes. A puff of the peculiar fœtor of cholera-discharge entered my very mouth and nostrils. I felt instantly sick, threw down my prescription-book, and returned to my own room: in a very few minutes both stomach and bowels gave way, and I felt very faint and also frightened. I sent for the apothecary, Mr. White, and told him to bring me a pill containing two grains of opium, and one of capsicum, and along with it a tumbler of brandy and cold water. I took the pill and some of the mixture, and got into bed, when I gradually sipped the remainder of the brandy and water, and after about an hour, fell into a sound sleep, and awoke quite recruited in three or four hours. I have no doubt, had I not acted as I did, the sickness

&c., caused by disgust and the attendant alarm, might have ended in cholera.

I remember Mr. Hart being confined to bed for two or three days by a bilious attack, and our being somewhat alarmed lest it should terminate in cholera, but, by ordinary attention, and use of the usual remedial agents, it ended as such attacks generally do. It was only wonderful that a man harassed as he was, was not often knocked up. In addition to the general superintendence of the hospital, he had, at stated periods, to attend the Board of Health, receive from it cheques on the Bank, and, having cashed them, pay every official connected with the hospital, from the medical attendants down to the laundresses. Work such as this must not only have harassed and worried the mind, but distracted it from its more immediate and legitimate, because professional, pursuits. Such, however, was the confusion at the time, that had not Mr. Hart undertaken, and (what very few, indeed, would have been able to achieve) carefully managed all, all would have been confusion totally confounded. The Board of Health, I believe, highly complimented him at the conclusion; but I rather think it was very little aware, indeed, of all he encountered. When we take into account the number of nurses and laundresses employed in Townsend-street, it is really a matter of surprise that *one* laundress and a disputed nurse should have been the only victims of the epidemic, more especially when we bear in mind that these individuals were taken from a very low and

poor grade of society. Had the same identical persons been left in their own homes, and not been employed in a *cholera* hospital, I have no doubt whatever a much larger proportion would have fallen victims. How, I shall be asked, do you account for an assertion *apparently* so monstrous? Simply thus: Had *these* nurses and laundresses remained in their own wretched homes, unemployed, and, consequently, very poorly fed, if not half starving, their only occupation would have been to brood over appalling scenes of suffering and death, and their only resource, to drown care, the whisky bottle. And then,

“*Corpus onustum*

Resternis vitiis animum quoque prægravat uná,”

depressed both in mind and body, their mental and physical powers both excited and debilitated, they would have fallen unresisting victims to the atmospheric influence of cholera. Whereas, when they were admitted into Townsend-street hospital, though at the time considered a focus of contagion (and indeed their seeking such employment proved their destitution), their minds and bodies were at once occupied in affording relief to others; their thoughts and apprehensions were diverted from themselves, and instead of that *consolèr* of care, but *consumer* of both mind and body, *the whisky-bottle*, they had abundance of nutritive food.

During the first month, a vast quantity of the best brandy, in flasks, was consumed in hospital use most unnecessarily: the general cry was brandy, or, as it

was often termed, "*aqua vitæ*." I have no doubt that to many it proved *aqua mortis*; it was often administered too strong, and persisted in too long, hence violent head symptoms in the secondary fever. I shall extract from Mr. McCoy's treatise on Cholera a bill of expenses for three patients, which he chanced to see on one occasion, when sent from Dublin as a superintendent.

"Gratuity for burying three patients (exclusive of wages)	£	s.	d.
Medical attendance on these three patients	16	7	2
Four coffins for three patients	2	3	7½
Presented to the owners of the houses in which the three patients died	6	17	11½
Brandy for three patients	1	6	9
Lime and brushes	1	14	6
Total for the three	£31	12	0

"I cannot say whether there might not have been another account furnished besides the above for these three patients, containing additional charges, but if not, I am bound to suppose that nothing but brandy had been administered to them in the way of medication, and certainly that does not appear to have been prescribed in homœopathic doses. From the time of my arrival to that of my departure, I saw none of the medical men of the place, even by chance, except the apothecary, at whose establishment the medicines were procured. The principal practitioner of the town, who had shared in the above *honorarium* for attendance, as I was told, declined having anything more

to do with cholera cases, through an apprehension of taking the disease, or communicating it to his family."

I consider the above extract a curiosity worth preserving; it proves strongly, amongst other things, how great was the universal panic of the day, in consequence of the equally universal belief in the contagion of cholera.

At the following page, 20th, we find another convincing proof of the baleful consequences of the terror caused by the belief in contagion:—

"This was the condition in which I found matters the first night, and early next morning. I reported to the Board; I stated the utter hopelessness of anything like efficient relief being rendered to the sick, or of checking the spread of the disease, if some kind of hospital were not at once procured; that, scattered here and there, as the sick were then, unprovided with anything necessary, without the assistance of nurses to give medicines, or administer in other ways equally essential—in many cases without one to hand a drink, or a vessel to give it in, that nothing could be done. It was promised me that an effort should be made to get what I desired. Four days passed in remonstrances on one side, and promises on the other, but no move was made to render matters better, when, seeing the people dying around me, I expressed my determination to stay there no longer. This threat procured an empty cabin for me; the first person sent in was laid on some straw on the floor, and an attempt was made to get up a fire; a blanket

was ordered from the next shop, and a mug bought, or borrowed, to give the patient a drink in; with these scanty appurtenances I was endeavouring to render what assistance I could, with the apothecary, at whose shop the medicines were to be procured, by my side, when a tumultuous and threatening crowd, opposite the door, gave us to understand that we had better decamp without loss of time. This the apothecary did immediately, by the back door, telling me he knew these people better than I did, and that it would be as much as our lives were worth to stay longer. I went out to remonstrate with the rioters; but was told, that a cholera hospital there would ruin the trade of the street, and that off I should go! The upshot was, that the police had to come down in force to prevent the sick man from being dragged out, and who died, moreover, in an hour after from the fright he received, and the terror of what might still be done."

These extracts, I think, speak volumes of what may be expected from the propagation of such opinions as those of Doctor Graves, and Surgeon Kirby. In fact, Dr. Graves seems resolved to fall a victim at the altar of self-immolation; one could imagine him exclaiming, in the words of the poet—

" ——— *me, me, in me convertite tela.*"

Single-handed he *boards* "the Boards of Health, both in Dublin and London, and the College of Physicians in the latter city," and die, or conquer is his war-cry. "He will not retract a single word;" "but alas! un-

consciously (I hope) he finds himself fallen into a serious error," and will be candid enough to proclaim, "I have recommended (not) truth, and, by my reasoning, have endeavoured (not) to uphold it;" and repentant even at the eleventh hour, will acknowledge the falsity of his *contagious* reasonings by exclaiming in his own words, "submissively placing his hand upon his empty stomach, 'Mass-a, belly sick, bad palavor (mine).'"—*Dublin Quarterly Journal*, Feb. 1849, p. 15.

In same page, we find the following remarks of Doctor Graves, and with these I shall take my leave of the learned Doctor:—"One great discovery has been made by the Board of Health in London, and which is announced in the following words: "The places in which the pestilence is now numbering its first victims are the very spots which are known to be the filthiest in their respective districts, and to be the constant seats of typhus fever, and other epidemic diseases. In tracing the individual cases reported to the Board of Health, the medical inquirers, who, under the direction of the Board of Health, have made a special investigation of the circumstances connected with the earliest attacks of the disease during its present visitation, have been led not only to the streets, courts, and alleys, but sometimes even to the very houses, that are notorious as fever nests." "So that it appears that the fever nests (says Doctor G.) had mysteriously and unaccountably become cholera nests, that the same *raw materials* have been used for

the production of *a totally new manufacture*, and that *a new effect* has been created by *an old cause*." Here we have, in the first place, the valuable and undeniable facts ascertained by the Board of Health in London—viz., "that the first victims occurred in the filthiest spots in their respective districts," and, in addition, "that such spots were notorious, as fever nests,"—and, in the second, the deceptive, false, and illogical conclusion, drawn by Doctor Graves from these valuable facts—viz., "that the same raw materials have been used for the production of a totally new manufacture, &c." Does it follow, that because "fever, miasmus, scrofula, (ay) and itch," delight in the same filthy spots as cholera, that, *ergo*, "the same raw material produced fever, &c., that produced cholera? I should think not. Doctor Graves might as well conclude, that, because the profligate and his companions delight in the same filthy, low haunts, *ergo*, *the same parents* begot the profligate and his associates. Filthy spots will not *generate* cholera, but they will undermine the health of those that inhabit them and "*hinc illæ lachrymæ*," well may we retort on Doctor Graves his own simile, and tell him, it is he who would rob Pandora's box of its last gift, Hope, and aggravate with contagion the greatest scourge to which flesh is heir, cholera, not "by a superabundance of hygrometric moisture," but of deceptive and false reasoning.

I shall now allow Mr. ANNESLY to speak for himself by quoting a passage from his work on cholera, which I consider explains fully his opinion and advice on the subject of blood-letting, and also the theoretic principles upon which his opinions and practice are founded; whilst so doing, I shall take the liberty of occasionally putting in *italics*, such passages as I consider bear most strongly on the principle at issue between him and me,—viz., bleeding founded on congestion, and which, I repeat, is altogether theoretic on his part; but the objections to which are altogether practical on mine, inasmuch as when commencing to treat cholera, in Townsend-street, I commenced to act on his principles and advice, having none other to act upon, and it was only when deeply grieved, and disappointed at the results, that I had recourse to the evidence of *post-mortem* examinations, and the testimony of my own senses. In proof, too, of the validity of such evidences, and the correctness of such testimony, I have the pleasure of stating, that then, and not till then, I was enabled to rescue from death many valuable lives, which, judging from previous painful experience, would otherwise inevitably have fallen to his lot.

Annesly's Work on Cholera, page 147.

“ Bleeding, therefore, when it can be effected, should never be lost sight of. The object, in resorting to it, is to diminish the quantity of this fluid, in order to relieve the heart and lungs from oppression, and to enable them to perform their functions—this object,

however, can only be attained in the early stage of the disease, and before the circulation ceases at the wrist. The necessity, therefore, of early aid is manifest, because, after this period, blood will seldom flow from the veins, and when it does flow, it is generally in too small a quantity to afford relief. I have sometimes seen sixteen, eighteen, and even twenty ounces flow languidly, and in a very thick stream, from the veins, then the bleeding stop suddenly, and patient sink at once. I have considered that, in these cases, the quantity of blood thus taken was merely that which remained in the veins, after their circulation had been arrested, and that the bleeding ceases, as a matter of course, when the veins are emptied. This circumstance has led to various opinions upon the propriety of bleeding, and has induced some to infer, that death was accelerated by it. I do not mean to deny this fact; but I conceive that the disease was then so far advanced, that death would have been the consequence under any circumstances, and that this issue was only hastened, probably half-an-hour or an hour, by the operation.

“ We have instances, however, wherein blood drawn, even in the advanced stages of this disease, has continued to flow till the balance of the circulation was restored, and the patient recovered. In these cases, the blood was at first thick, black, and came away in drops; at length it became thinner, and flowed with more ease, till the colour changed to a bright red. This is the change which should always be looked for,

and whether it takes place after the abstraction of one ounce or thirty ounces, is of no consequence; this change must supervene before the patient can be considered safe. Under all circumstances, therefore, I think we should never forego a trial of the lancet."

Here we see Mr. Annesly makes bleeding his sheet anchor—and with what object? "In order to diminish the quantity of blood in the system, and relieve the heart and lungs from oppression." Now, unquestionably, if we admit the existence of this oppression, we must also admit the propriety of bleeding. But I deny, *toto cœlo*, the existence of any congestion, and therefore I deny altogether the propriety of bleeding. Let us now see the result of Mr. Annesly's own experiments, in some cases, at least: "I have sometimes seen sixteen, eighteen, and even twenty ounces flow languidly, and in a very thick stream from the veins, then the bleeding stop suddenly, and the patient sinks at once." So have I, often, very often, too often, seen the very same thing happen; but I will take very good care I shall never see it again. Instead of being able to arrive at Mr. Annesly's consolatory conclusion in such cases, "that death would have been the consequence under any circumstance, and that this issue was only hastened, probably, half an hour, or an hour, by the operation," I am obliged in candour to admit, that though this may have been the case with some of the patients operated on, yet that many other valuable lives, though in humble

circumstances, were sent to a premature grave! I should be glad to learn, too, how Mr. Annesly could have so nicely calculated the number of grains of sand in any individual's hour-glass as to be able to affirm that it had at best but "half an hour, or perhaps an hour, to run." Why, Mr. Annesly's own expression, "perhaps," after which he exactly doubles his first guess, plainly proves it a "peradventure."

"Yet on this peradventure, infamous
For lies, as on a rock of adamant
He builds."

YOUNG.

And what does he build? As might be expected, a baseless fabric—a building without a foundation, save such as a few grains of sand in an hour-glass would take "half an hour, or probably an hour," to undermine! And what is this adamantine rock upon which he builds? An imaginary nothing—a theoretic ideal—commonly called "congestion." And how does he endeavour to support this baseless fabric, this practical and fatal blunder, his practice? Why, by telling us that although our patients die under the lancet, after being drained of the last drop of blood in their veins, and that though he does not mean to deny this fact, still his practice was good, and we ought to imitate it, because "death would have been the consequence under any circumstance, and this issue was only hastened probably by half an hour, or an hour, by the operation. Really, now that I have time to review the matter, and whilst I consider it patiently, and com-

pare Mr. Annesly's precepts with the results of his practice tested in my hands, I cannot but wonder in amazement how it could ever, upon his own showing, have found a single supporter. The fact was, we were all bewildered at the time; we had never before seen anything like it; we were like men going about and asking, "Who will show us any good?" Mr. Annesly's book we were all referred to, by our seniors, as "the law and the testimony," and the radiance of a great name dazzled our eyes, but proved in the end an "*ignis fatuus*," leading unfortunate medical men, and their still more unfortunate patients, into the slough of despair and death.

"I have *considered*," says Mr. Annesley, "that the blood thus drawn was merely that which remained in the veins after their circulation had been arrested, and that the bleeding ceased, as a matter of course, when the veins were emptied." This appears to me a very strange conclusion indeed for Mr. Annesly to have arrived at by "consideration." It seems to me to savour much more of the conclusions hastily drawn by a person who, without consideration, ventured a random opinion. Sixteen, eighteen, and even twenty ounces, merely that which remained in the veins after their circulation had been arrested! I conclude Mr. Annesly, like every one else, bled his patients from the arm, and if the blood which was abstracted were merely what remained in the superficial veins "after their circulation was arrested," I do not exactly perceive how the removal of a portion of the blood, which

did not enter into the general circulation, could in any wise tend to destroy life. Life was previously sustained by the general circulation, without any aid from this arrested local circulation of the superficial veins of the arm; and, for my part, I “consider” life might have lasted *ad infinitum*, if nothing else than the previously arrested blood of the veins of the forearm interfered with it. Again, the merest tyro, who is a medical man, must, upon consideration, laugh at the idea of sixteen, eighteen, and even twenty ounces of blood being drawn after the circulation in the arm had ceased. I should be glad to ask Mr. Annesly, or his supporters, how many ounces of blood have they ever drawn from a vein in the arm when the ligature was applied so tightly (as often happens with inexperienced hands) that the circulation of the humeral artery was arrested? not two ounces, until the ligature being loosened, allowed the circulation in the radial artery to be felt. Mr. Annesly says, “We have instances, however, wherein blood drawn, even in the advanced stage of this disease, has continued to flow till the balance of the circulation was restored and the patient has recovered. In these cases, the blood was at first thick, black, and came away in drops; at length, it became thinner, and flowed with more ease, till the colour changed to a bright red. This is the change which always should be looked for,” &c. All I can say is, “this is the change I have always looked for,” but never seen; nay, more, I do not now believe Mr. Annesly, or any one else, ever did see this change

in the advanced or incipient stages of cholera. *Credat Judæus Apella, non ego*. His imaginary cases were not cholera.

I can easily imagine Mr. Annesly deceived, as I was myself at first, into a belief that cases attacked by sudden pain and spasms, together with vomiting, or rather retching and purging, (this purging, however, more in reality, a dysenteric than cholera character,) were cases of cholera, and I can readily imagine the blood flowing at first languidly and slowly, from the apprehension, and even faintness, into which we see many thrown from the operation of bleeding, and the sight of their own blood, and as this faint state wore away, the blood then flowing in a copious and rapid stream; but I must, at the same time, make very ample allowance indeed for the imaginary appearances, which a mind so prejudiced and predetermined on seeing cholera in the symptoms, and finding congestion in the post-mortem examinations; especially when I find this same person averring that though he extracted the last drop of blood in his patient's veins, and although he admits that life was shortened by so doing, "under all circumstances, therefore, I think we should never forego a trial of the lancet."

Were I, for instance, to take up a peculiar theory of my own, as to the nature and cause of the hectic fever of phthisis, and, despising the aspect of my patient, his emaciated frame, and empty superficial veins, like Mr. Annesly, propound that internal congestion was the cause of all the appearances which

presented themselves, and setting about to cure my patient by bleeding him, and finding him die after I had abstracted the last drop of blood which the superficial veins of his arm contained, were I then coolly and composedly to tell his friends, "My good people, 'I consider' that in this case, the quantity of blood taken was merely that which remained in the veins; death would have been the consequence under any circumstance; and this issue was only hastened probably half an hour or an hour, by the operation." Now let me ask, Do you think, reader, this cool, composed, but, at the same time, barefaced explanation of the occurrence would be received? I rather suspect, just with about as much credulity as I now believe Mr. Annesly.

And yet the two cases are very similar indeed, the only difference between them consists in this, that phthisis is a very chronic, cholera a very rapid disease; in the phthisical patient we have previously existing expectoration both of blood and matter, diarrhœa and colliquative sweats, to account for the absence of blood in the superficial veins, without being under any necessity of imagining congestion in the deep-seated; and, in like manner, in cholera, we have the previously existing diarrhœa and profuse vomiting to account for a collapsed countenance, and a thready, or totally absent pulse.

I think I may now conclude my observations on Mr. Annesly and his doctrines, by merely recapitulating what I have previously endeavoured to establish—

viz., that having unfortunately adopted a false theory, he laboured ingeniously *per fas et nefas*, in other words, through thick and thin, to support *quocumque modo* this theory: this is an occurrence, unfortunately, too frequent with us all—we *will see* only what we *wish* to see: the ὁ γὰρ βουλεταί, το καὶ οἱ εταί, is as old as Demosthenes at all events, and perhaps as the world itself, and like it, shall continue till time shall be no more.

At page 139 of the second edition of Mr. BELL'S TREATISE ON CHOLERA, published in 1832, we read as follows:—

“Cholera Asphyxia is a disease which leaves no time for hesitation or delay in its treatment; but, unfortunately, its prominent symptoms are far from indicating the means best adapted for its cure. In such circumstances, a correct notion of the nature of the disease, or experience, is the only foundation on which we can hope to establish a successful mode of treatment. The opinion which has been offered, in the previous pages, in explanation of the nature of Cholera, has this to recommend it, that it explains, to a certain extent, the line of practice which has been found most successful in overcoming the disease.

“The following may be considered the indications of cure:—1. To relieve the oppressed circulation; 2. To stimulate the system; 3. To restore the heat of the body; 4. To guard against local congestion;

5. To keep down reaction ; and, 6. To produce a healthy condition of the alimentary secretions.

“ 1. Indian practitioners and medical writers have found it so difficult to account for the almost magical effects of venesection in Cholera, that they have puzzled themselves for explanations of the *modus mendendi* of this remedy. One class are anxious to discover a stage of high action, which, as they assume, will be the proper time for bleeding. Others, anxiously look for proofs of local inflammation, as an apology for removing blood from a patient in the last stage of general collapse. And a third set bleed, because, as they say, there is determination of blood to the abdominal viscera. It will be admitted, that not one of these reasons is satisfactory. Cholera, as I have endeavoured to show, is not collapse consequent on high action. Inflammation is not conceived to be possible after the heart has ceased to circulate arterial blood, and when its action, if it have not ceased, is sunk into a mere flutter. And determination of blood to internal parts is explained, I think, by the fact, that venous congestion becomes greater, where the circulation is freest, and where there are no valves to prevent the veins from being gorged by regurgitation. If indeed the discharge of serous fluid by capillary vessels is to be regarded as a proof of determination of blood to internal parts, the blood must also be determined to the surface, from which a similar fluid is simultaneously discharged. But it will hardly be received as a legitimate reason for removing blood

from the surface, that it had been already withdrawn from it.

The effect of bloodletting in cholera is obviously in a great degree mechanical. The power of circulation has been injured; it is no longer capable of duly distributing the mass of blood in the system; and the cessation of the usual secretions, the deficient pulmonary function, and the effect of the discharges, have rendered the blood wholly unfit for vital purposes. *By bleeding in such circumstances, we relieve the gorged vessels, and thus enable the weakened energies of the circulating power to act on the disburdened organs of circulation, and to restore the current of the blood.* The lungs recover their function, pure blood is thrown into the left heart, the arteries are again filled with fluid fit to support life: this, it may be supposed, reacts on the sympathetic system, and by-and-by its energies are completely restored. In this way, only, can the effect of bloodletting in cholera be explained. No other method will account for the almost instantaneous recovery which so often follows venesection in such a condition of the system as has been described — a recovery more immediate than that which follows the removal of mechanical pressure from the brain. And I should say, very confidently, that, in no case in which it is possible to persevere in bloodletting, *until blood of a healthy colour and consistence flows freely from the vein*, will the patient die from collapse.

“ The value of this remedy is well stated by Mr.

Scott in his report already alluded to.* ‘ Few remedies,’ he says, ‘ on a fair trial, have been more generally and unequivocally advocated than free bloodletting ; and the most that has been urged against it is, that it is not always successful. The advocates for bleeding proceed, however, on the principle, that a certain quantity of blood is to be obtained in order to ensure success, which few of them estimate at less than about thirty ounces. Those who are disposed either less favourably towards bleeding, or to condemn it altogether, object, that if the circulation is in a condition to admit of free bleeding, the case is a mild or favourable one, and would probably yield to other remedies. There is no doubt that fatal collapse has sometimes followed even *large* bleedings, which has staggered the faith of many practitioners in the general safety of the remedy ; but, in the great majority of cases, it is after *small* bleedings that this has happened. There is the most ample evidence also, that cases, especially in Europeans, even under the most favourable appearances, will often, in spite of all internal and external remedies, go on to a fatal issue when bleeding is not practised.’

“ Mr. Scott proceeds to exemplify these facts, by extracts from the reports of those surgeons who have had most experience of the treatment of the disease ; which are not only illustrative of the importance of the remedy, but prove the difficulty to which the

* Madras Report, p. 58.

usual doctrines on the subject of bleeding expose the practitioner, in his endeavours to explain the *rationale* of bloodletting in cholera.

“ As Mr. Scott has truly said, cases often occur in which all remedial means are completely abortive. The remote cause of the disease is apparently in such a state of concentration, or the idiosyncrasy of the patient is such, that he is at once struck with death. In the very outset of the disease, like an animal which has had a full dose of the *Upas antiar*, the circulation is found to have ceased ; the heart no longer beats ; and though the sensorial and respiratory powers remain, every effort to restore the pulse and bring back animal heat fails ; vitality seems to leave the body gradually, but very quickly ; the breathing becomes slower, and the looker-on has a painful consciousness that respiration is becoming more and more useless : insensibility creeps on, and the transition to death can scarcely be marked. In such a case, every remedy is unavailing. If any blood can be removed, it is grumous and black, and the veins in the immediate neighbourhood only of the operation are emptied. Stimulants produce no effect, and the application of even moderate warmth is not endurable, or perhaps the skin is quite insensible. Vesicatories do not act, and leeches can draw no blood. In these circumstances, it is evident that the patient's fate is sealed. In watching such a case, however, there will sometimes be discovered an effort, as it were, on the part of the heart, to rally ; it will be perceived to act, and

the pulse will even begin to flutter; and it has happened, that, almost at the moment of death, there was an evolution of animal heat, so that the corpse became warmer than the patient himself had been, an hour before death. It is therefore the duty of the surgeon to watch such a case most anxiously: the lancet may yet avail; and, as has happened, ‘the blood was found unexpectedly to flow, the stream improved, and the *dead man* got up and walked away.’*

“In commencing the treatment of cholera, then, no time is to be lost in endeavouring to bleed the patient. He should be laid in a warm bed; and the great object being to get blood to flow, it is important that the operation should be performed with as little fatigue to him as possible. He should be kept in the recumbent position; and, as answering the two next indications will be the means of forwarding this important object, immediate recourse should be had to stimulants—applying artificial heat, using friction, &c. The rule as to the extent to which the removal of blood should be carried, is very simple; it has no reference to the prostration of strength, or to the constitutional stamina of the patient. The power of circulation is unable to give motion to the volume of blood which has accumulated in the venous system, and which has been rendered, by the cessation of secretion, the diminished function of the lungs, and

* “The words of the late Mr. Surgeon J. Barton, in describing to me a remarkable recovery.”

the disordered actions, incapable of supporting life; and blood is let, until it appears that so fatal a condition of the vital fluid has been changed. In other words, the blood ought to be allowed to flow, until the natural current in the veins has been restored, and there is evidence, in the improved colour of the blood, that the lungs have recovered their function. If opening one vein be not sufficient, let others be tried; and, until the disease yields, the practitioner must persevere in his endeavours to accomplish this great object. In the outset, perhaps only a few drops of tar-like blood can be obtained; by the use of internal and external stimulants, some good appears to be done, and the pulse rises;—renewed attempts should immediately be made to remove blood; nor should these be desisted from while life remains.

“ In addition to the lancet, leeches or cupping-glasses should be tried. It is to be remembered, that, added to the general venous congestion, there may be a tendency to morbid plethora in particular organs. There is sometimes confusion of head, and more obtuseness of the intellectual faculties than usual. This is not only a bad symptom with reference to the present condition of the patient, but may be attended with fatal effects, after the primary disease is relieved. In such cases, I should bleed from the jugular vein; and as many leeches as will adhere should be applied to the temples and throat. The abdomen is in every case the principal seat of congestion; leeches ought therefore to be applied to the belly also, and particu-

larly over the seat of the liver, care being taken to avoid, as much as possible, exposing the patient's body to cold. It is unfortunate, however, that, like blisters, leeches, during extreme collapse, are quite useless."*

* "I cannot too strongly inculcate the value of bloodletting, provided it be resorted to *fearlessly*, and with *faith* in its efficacy. Experience has shown that *small bleedings* may do harm, but free venesection, where practicable, has scarcely ever failed. The Indian practitioners, and some others, in the Edinburgh Board of Health, strongly impressed with the value of this remedy, endeavoured to render it popular, by suggesting that it should be recommended in the strongest terms by the Board to the public. But we failed in our attempt; and I was afterwards told, by an individual (not of the Board), that we were *conquered* by the other professional members of the Board. There was, however, no victory. The phlebotomists did not press the point, because they had no wish to force their practice on their professional brethren, who had what they conceived to be good objections to it. But so important do I consider bloodletting as a remedy, that I recommend that no time should be lost in resorting to it in every case in which, during the prevalence of cholera, there is *a sunk countenance, and blue lips and nails*—the bleeding being persevered in *until the colour of the blood improves, and the patient feels relief*;—and, as was said in the first draft of the Edinburgh Board's Report, Let any one bleed who can perform the operation."

At page 14 of Mr. GREENHOW'S (Newcastle-upon-Tyne) TREATISE ON CHOLERA, published in 1832, we find the following remarks:—

“In the treatment of a case of Cholera, then, we must hold in view—

“1. The necessity of allaying irritation in the nervous expansion of the stomach and bowels.

“2. To excite the vascular system, and to restore animal heat.

“3. To restore the suppressed secretions.

“4. To obtain healthy evacuations from the bowels and kidneys.

“5. To moderate reaction, and obviate congestions, local determinations, or organic inflammation.

“The first indication may be considered as common to the first and second stages of the disease, the three succeeding ones relate principally to the second stage, and the last indication is peculiar to the third stage of cholera. We will consider them in the order of their arrangement.

“If the supposition be correct that the efficient cause of this disease produces its primary impression on the mucous membrane of the stomach and bowels, or rather on the extreme nervous filaments with which they are supplied, and that the irritation hence arising is the immediate exciting cause of the nausea, vomiting, and purging which ensue, one of the most obvious and efficient means which presents itself to our consideration is the excitement of full vomiting to relieve the inefficient retchings which characterize

that symptom of the disease. In this way we shall not only induce a new action in the stomach, by changing the vomiting of irritation into that of excitement, but we shall probably remove undigested matter, if, as is frequently the case, such should remain there, tending to increase irritation, and give a powerful stimulus to the vascular system, to the several deranged organs, and to the skin. Some degree of reaction, a partial restoration of animal heat, moisture of the skin, a relaxation of spasm, and a general feeling of relief, very generally succeed the full vomiting induced by an emetic. The nature of the agent by which this new action of the stomach should be excited will depend upon the group of symptoms which obtain in the particular case. If the stage of collapse have not yet established itself, and if with bilious diarrhœa the patient complains much of nausea and occasional retching, the matter rejected consisting principally of undigested food, we shall probably find a dose of ipecacuanha, with or without antimony, answer the purpose, or even copious draughts of warm water will suffice to wash out thoroughly the contents of the stomach. Should the patient complain at this time of vertigo, headach, or pain in the abdomen, with an accelerated pulse, the greatest relief will arise from a full bleeding, proportioned, however, to the strength of the constitution, the effect produced upon the pulse, and the urgency of the symptoms. As the blood flows, the pain in the abdomen and head will be relieved, and the pulse will

become slower and softer; a manifest diminution of gastric irritation will also result from it.

When the stage of collapse has set in, and we find our patient cold and pulseless, excitability is greatly diminished, and a more powerful stimulus is required to excite the full action of free vomiting. It is in cases of this description that the mustard emetic has been used with considerable benefit. Two drachms of mustard, in a cup of warm water, may be given every ten minutes till full vomiting ensues. Not only do the stimulating qualities of the mustard change the irritation of the stomach into the action of excitement, but they appear to have a considerable influence over the suspended circulation, often inducing a return of pulsation at the wrist, increased heat of the extremities, and a diaphoretic effect upon the skin. After the action of the emetic, the indication of allaying irritation is to be followed up by repeated doses of calomel and opium. I am disposed to think, that both these medicines may be given in too large quantities, especially the opium: it has a tendency to oppress the head, and in large doses, rather to retard than stimulate the action of the heart and arteries. I think I have found, that in reference to the present indication, grain doses of opium, repeated every hour, are capable of effecting all the good we can expect from that medicine, while I have not observed any unpleasant results to arise from it, and when conjoined in a pill with five grains of calomel, it frequently succeeds in checking the retchings, and, ere long, the

serous discharges from the bowels, while the spasms also yield to its soothing influence. After trying many combinations of opium both in a liquid and a solid form, I have given a decided preference to the present formula. But there are, no doubt, cases depending on the constitution and previous habits of the patient, in which larger doses of opium may be, not only admissible, but absolutely necessary, to ensure the beneficial effects of the remedy. Whether advantage is to be derived from larger doses of calomel, I feel much doubt, but I am disposed to believe, that generally speaking, the dose proposed is not likely to be less efficacious than any larger quantity; and if a greatly larger dose is capable of producing any additional effect upon the constitution, there is certainly a hazard of its being an unfavourable one.

Our second indication is to be effected partly by the means already noticed, by the administration of internal stimulants, by the assiduous application of external heat by copious, warm, and stimulating injections into the intestines, and by irritating applications and friction to the surface. Perhaps there are few internal stimulants more grateful to the stomach, or more efficacious in their action, than brandy, a table-spoonful or two of which may be given repeatedly either in warm water or gruel. In extreme cases, however, other more powerful stimuli may be exhibited either in conjunction with it, or at intermediate intervals: these may consist of ammonia, camphor, sulphuric æther, or the essential oils. I have not

been able to discover that anything like a specific effect has been produced by any of these; and if any good at all should arise from their exhibition, it must certainly be attributed simply to their general power as stimulants. The external application of heat naturally forces itself upon our attention as an obvious means of exciting the dormant action of the heart and arteries, and of obviating the extraordinary coldness which seems to pervade the entire system. It is true, indeed, that I have heard some scepticism expressed as to the utility of this measure, by physicians of great skill and experience in the treatment of cholera, on the ground that it was totally unequal to the excitement of reaction. I am satisfied, at least, that it places the person in a state to admit of the more ready restoration of the circulation; and that, whether or not, in itself it may have any effect as a direct stimulus, at any rate it gives additional efficacy to the other stimulating measures that may be pursued. I must consider the assiduous and unremitting application of external heat, therefore, as an essential part of our treatment of the stage of coldness and asphyxia.

“For the accomplishment of this purpose, one of the first things to be attended to is to clothe the person of the patient in a large body dress or shirt of thick flannel, and to envelop him, when laid in bed, in an ample supply of warm blankets; heated bodies of any convenient description should also be constantly applied to the extremities, to the spine, and to the pit of the stomach and abdomen. Various contrivances

have been made use of for applying heat to the surface. To the employment of the warm or hot bath it has been objected, that the exertion and fatigue attendant on its use are likely to be more injurious, by the exhaustion they would occasion, than could be compensated by any benefit arising from the general application of heat that would be obtained; and although warm baths have been found beneficial in India and on the Continent, in this place they have not been resorted to in the treatment of cholera. Nevertheless, I know a gentleman who suffered from cholera at Archangel, during the last summer, and who was restored from a state of complete asphyxia by being kept in a warm bath, of high temperature, for an hour and a half. I am sufficiently sensible of the necessity of preventing the patient from using any voluntary exertion, and more especially of strictly preserving the horizontal position during arrested circulation, having witnessed the fatal effects of a departure from this rule in the almost immediate death of the patient; but I am yet inclined to believe that the prejudice against the use of the warm bath is greater than necessary. The patient might surely be placed in, and removed from it, with such quickness and so little disturbance, as to obviate the objections that have been made to it. It is, however, for the most part, in hospital practice only that the employment of this means of restoring the defective heat of the system could be available, since the houses of the poor are seldom provided with the requisite conveniences for

preparing a heated bath. Various machines have been invented for introducing heated air into the bed of the patient, but the experience of our hospitals has proved their inefficiency, I believe without an exception, and their use has been almost entirely laid aside. Mr. Wood, a gentleman of considerable ingenuity in this place, has contrived an apparatus, consisting of several thin bottles of tinned iron, which are adapted to the extremities, and other parts of the body, in such a manner, that when filled with warm water and cased in bags of flannel, they have been found to answer in a satisfactory manner the purpose of the external application of heat; but on ordinary occasions, we must content ourselves with heated iron, bricks, bags of sand, flannels, &c.*

“Copious, warm, and stimulating injections into the intestines, have been found valuable auxiliaries in effecting this indication. I have seen the restoration of animal heat and the reaction of the vascular system commence almost immediately after the injection of three pints of water, containing a strong solution of soap, and of as high a temperature as could be safely borne, in a patient whose condition appeared hopeless, so complete were the general coldness and asphyxia. This man's case will be related hereafter; his recovery has been complete. The same remedy has been advantageously employed in numerous other cases, by

* Mr. Brady, of Gateshead, informs me that he has used moist heat with much benefit, in the shape of a large poultice of bran, placed between two sheets, and applied over the entire surface.

several of my professional friends; occasionally it has contained laudanum, with a view to allay irritation; at other times, stimulants, as camphorated spirit of wine, or a teaspoonful of powdered mustard. The main advantage, however, seems to be derived from the quantity and warmth of the fluid, which must be thrown with considerable force, by means of Read's syringe, into the intestines. The colon becomes filled with it from the cœcum to the rectum, and it acts as an internal fomentation, or warm bath, to the several organs with which, in consequence of the course of the large intestine, it is placed in contact. Should it be discharged, the injection can be repeated any number of times, till its full effect is produced, with little or no fatigue to the patient. In the case referred to above, it remained fifteen hours.

“An injection of a different description has been employed and recommended by my friend Mr. Baird. From the analogy which he believed to exist between some of the symptoms of cholera and those of tetanus, he was induced to try the effect of injecting an infusion of tobacco into the rectum; and the first patient on whom the experiment was made did well, although his case had appeared nearly hopeless. I have not myself made use of this remedy, but have been given to understand that, in other instances, it has, at least, entirely failed, if its effects did not prove unequivocally injurious. We must, I think, conclude that it was in reference to spasm that Mr. Baird was led to make use of the tobacco injection; but if we have estimated

correctly the relative importance of the symptoms, the danger does not arise from spasms, but from the arrested circulation and the absence of animal heat. Is it likely, then, that these should be restored by the use of so powerful a sedative as tobacco? In cases of strangulated hernia, we use it to relax spasm indeed (if the stricture on the intestine may be considered as such), but at the same time to depress the powers of the heart and arteries; and experience proves that it answers this indication well. We should scarcely anticipate, then, that in cholera it should produce a directly opposite effect. But Mr. Baird still maintains the utility of the measure, and I trust he may favour me with some notes on the subject. In addition to these means of stimulating to reaction, sinapisms to the scrobiculus cordis, to the insides of the knees, and to the calves of the legs, have been found beneficial, and frictions have, without doubt, proved valuable auxiliaries; the dry hand, flannels, or stimulating liniments may be used for this purpose. Friction should be immediately applied to the parts affected with spasms, as a ready and efficient means of affording relief. A ligature round the affected limb will likewise, not unfrequently, be found of service.

“ If the means already referred to have been employed with success, it is probable that our third indication—the restoration of the suppressed secretions—will have been in a great degree accomplished; this, indeed, is to be considered the surest sign of conva-

lescence, and our anxiety to effect it is, in consequence, very great. If the case be a severe one, and by the unremitting employment of the measures described we have the inexpressible satisfaction of witnessing a decided remission of symptoms—a cessation of gastric and interic irritation, evinced by an arrest of the serous discharges from the stomach and bowels, a restoration of the pulse and of animal heat, a relief of cramps, and a quietude and general feeling of comfort and composure in the patient—probably several of the pills with calomel and opium will have been given, perhaps to the amount of at least six or eight; but the opium has now fulfilled its purpose, and its further use would probably be injurious. Not so the calomel; unless a considerable quantity have been already taken, a full dose, varying from five grains to a scruple (in truth, I believe it is a matter of much indifference which), may be given; and to fulfil the fourth indication—to obtain healthy evacuations from the bowels and kidneys—the exhibition of a purgative may soon succeed. Castor oil, I am disposed to believe, will be found the most effective and least irritating medicine of this class; but should it fail, other means ought soon to be resorted to, and injections may be employed to assist their operation. Calomel and jalap, or a purgative infusion with carb. and sulph. of magnesia, may be given at intervals, until discharges are obtained from the bowels; these will probably be found feculent and bilious, and, for

the present, we may consider our patient safe, especially if, as usually happens, urine be discharged at the same time.

“ Although, for the sake of order, I have spoken in succession of the several indications to be held in view in the treatment of the second stage of cholera, and of the means by which they are to be answered, the actual employment of many of those means must be simultaneous. The urgency of the symptoms, and the rapidity with which they end in death if not relieved, will admit of no delay in the use of remedies; and we shall find it necessary to take a leading part in the administration of them ourselves. We must direct, superintend, and assist in all that is going forward for the removal of the frightful symptoms which present themselves in our patient. It is not a case in which we can rely on the management of nurses, however well disposed to do what we advise; when we have left the patient's room, they are almost certain to relax in their exertions. We must, therefore, watch the progress of the symptoms, and the effect of the remedies with the utmost vigilance, and be content to perform not only the part of the physician, but of principal nurse also. If we should be rewarded for our exertions, continued for many hours, perhaps, by seeing our patient emerge from the fearful train of symptoms which characterize the second stage of cholera, our personal attendance will no longer be required with the same degree of constancy; but we must carefully watch the progress of reaction, and be

prepared to meet, with promptness and activity, symptoms of local determination or organic inflammation. The analogy between this stage of cholera and the various forms of continued or inflammatory fever may be considered as complete, and our treatment must be of a corresponding nature.

“It is sufficiently evident that when reaction has once been fairly established, the further use of stimulants must prove injurious,* their exhibition ought, therefore, to be discontinued; and we shall probably find it necessary to resort to bleeding, local and general, assisted by blisters, purgatives, diaphoretics, tepid ablutions, and the application of cold to the head. But the treatment of this stage of the disease, wherein the diagnostic symptoms of cholera have disappeared, and which may perhaps rather be considered as consecutive to, than an essential part of it, is not peculiar. Its leading feature is very generally organic inflammation, and the treatment must be conducted on general principles. It must, however, be bold and decided, and throughout, the patient must be closely watched, until convalescence is fully established. *It is at the commencement of this stage that general*

* “In a case which occurred in the Hospital established in the Castle, under the care of Dr. Headlam, the death of the patient was distinctly referable to the imprudent administration of stimulants by his friends when he had arrived at a state of convalescence. ‘I am certain that congestion in the head was produced by the improper use of stimuli, whilst he was apparently convalescent,’ observes Dr. Headlam, in a note on the subject of this man’s death.”

bleeding is likely to prove especially useful in obviating, by anticipation, local inflammations. I have hitherto said little on the subject of this powerful remedy—powerful when employed at the auspicious moment—powerless when attempted to be used at a later or an earlier period. When we are fortunate enough to be called to a patient before the pulse fails, still more before the serous evacuations commence, when he is suffering from the symptoms which so frequently occur in the first stage—nausea or vomiting, purging of bilious matter, vertigo, headach, probably injected conjunctivæ, pain in the abdomen or at the pit of the stomach, with a quick, sharp, or oppressed pulse, and probably occasional cramps in the legs—*a full bleeding will be found of the greatest benefit, not only in relieving the existing symptoms, but in averting the impending horrors of the second stage of the disease:* this effect may perhaps yet be produced, although the pulse have become feeble and still more oppressed, but not when imperceptible. *In such cases it expands and increases in strength and freedom as the blood flows.* If, however, asphyxia, coldness and blueness of the extremities have fairly established themselves, the attempt to obtain blood is vain; thickened and stagnant as it is in the vessels, it cannot be made to flow, and if a few ounces be squeezed from the orifices, it hangs from them in long strings, accumulating like stalactites, without producing any beneficial effects. On the contrary, it fatigues the patient, exposes him to the prejudicial influence

of cold, and suspends for a time more efficient means of relief. I must, therefore, hold bleeding in these circumstances to be inadmissible, *principally because it cannot be accomplished*; and the attempt injurious, since it diverts attention from measures of less doubtful utility, because they are really practicable."

As I deem it but right to adduce every evidence which I possess, I quote the following:—

Cases of Cholera collected at Paris, in the month of April, 1832, in the Wards of MM. Andral and Louis at the Hospital La Pitié. By JAMES JACKSON, JR.*

“The following cases were collected at the Hospital de la Pitié at Paris, during the month of April, 1832, in the wards of MM. Andral and Louis. A great part of the Notes and almost the whole of the dissections were translated at the bedside and the dissecting-table, from the dictations of these accurate and distinguished pathologists.

* “NOTE—By JAMES JACKSON, M.D., *Professor of the Theory and Practice of Physic, in Harvard University.*

“This work consists of cases of cholera with *post-mortem examinations* in most of the fatal cases, and of a brief summary, in which the most important inferences from the cases are stated, partly in the form of tables. It was prepared by my son, who is pursuing the study of medicine abroad. He collected the materials at Paris in April last, and put them into form in May at London. The sheets were sent by him in the first week in June; but, owing to accidental causes, they did not all reach me till the last of July.

“It may fairly be asked what apology can be made for publishing a new work on this subject, on which so much has been written; and that work by a medical student. It was left to me to decide whether this book should be published, and my decision may be supposed to have been influenced by a very natural partiality. Let me say, then, in the first place, that I was jealous of this feeling, and therefore placed the papers in the hands of a medical friend, in whose judgment and fidelity I place entire

“The cases are sixty in number, and are divided into two general classes of thirty each. The first consists of those, in which no reaction occurred, or in which it was but very feeble and transient; the second of those in which full reaction was established.

“Next to the detailed cases follows an analysis of the same, in which I have endeavoured to present them under the various points of view which seemed to me most important.

“Lastly are a few remarks upon the nature of the

confidence; and that his advice was unequivocally in favour of the publication.

“I certainly regard the work as evidence of zeal and industry on the part of the writer, who made the collection of the materials and the arrangement of them in the course of two months, during which he took his leave of one great city, and entered another for the first time. Also I know very certainly that he was prompted in this labour by a desire to do something which might be useful in his own country, should the cholera reach that, as it has since done. But these considerations would not make me think a work which was strictly that of a medical student, could claim such attention and confidence as to be worthy of publication. It is not, however, to be regarded as strictly his work. The cases occurred in the Hospital La Pitié, and were under the charge of M. Andral and M. Louis, two physicians deservedly holding a very high rank in the estimation of foreigners, as well as of their own countrymen. These two gentlemen are particularly distinguished for the accuracy with which they note the phenomena of diseases, and the pathological changes in the dead body. In these respects, they are not surpassed by any. The epidemic, which commenced in Paris at the very end of March, was a new disease to them. They devoted to the study of it almost the whole of their time and of their energy. It was my son's good fortune to be permitted to follow them closely, and to have the phenomena pointed out by them both in the living and the dead subject. It was his endea-

disease. These are very brief; as I consider facts far more valuable than speculation.

“ CLASS I. *Cases in which there was no reaction.*

“ CASE I. *St. Athanase, 26.—Male Ward.—Under care of M. Andral.*

“ Picard, æt. 53, porter, entered April 6th, 5½ A.M., says he is well-nourished, generally enjoys good health, and had committed no excess previous to present ill-

vour to note exactly what they demonstrated. They laboured to ascertain the facts, unbiassed by any theory. It was his aim to communicate those facts, accurately delineated by these great masters, to those who had not the same opportunity, but who might afterwards be called upon to contend with the formidable disease to which the facts relate. It is true that much has now been learnt on this subject by personal observation in our own country; yet there are many who have not yet had the painful opportunity for such observation. And those who have may find themselves aided by the experience of men so highly qualified for exact observation as the distinguished pathologists before named.

“ The inferences which are drawn from the following cases may be confirmed or refuted by more numerous observations. The writer seems aware that the cases are not sufficient in number for a decisive judgment on many points. Those inferences, however, especially as expressed in a tabular form, may serve as references, with which the observations of others may be conveniently compared. It will not be understood that these cases are all which occurred at the Hospital La Pitié. They are all of which the writer was able to take accurate notes; and he is cautious in drawing inferences except from those.

“ The physician who has studied the history of cholera may be surprised that he does not find here recorded any of those cases in which the disease was sudden in its attack and rapid in its course, so as to terminate life after a few hours of suffering. But

ness. Without any peculiarity in food, or otherwise, after working all day as usual, was suddenly taken last evening, (5th,) with severe diarrhœa, unaccompanied with colic, watery (says six chamber-pots in a short space of time); no nausea nor vomiting—even up to the present time (6th, 8 A.M.); cramps came on with the diarrhœa and still continue, becoming very severe in legs, and occasionally, though feebly, in arms.

on reflection it will be obvious that cases of that description can rarely be met with in a hospital, unless in military establishments. In these, arrangements may be made for the immediate removal of the sick to a hospital on the first moment of seizure.

“If this work professed to explain many doubtful questions respecting cholera, to decide on its causes, its intimate nature, and its treatment, it might attract more regard. It professes only to be a contribution toward the natural history of the disease. The natural history is the first, I had almost said the first and the last thing to be studied in every disease. This contribution may not enable any one to decide on the proximate cause of cholera. It does not profess to offer any mode of treatment which can be relied on in severe cases of the disease; on the contrary, it rather shows the inefficiency of the methods tried in those cases.

“One of the most important inferences to be drawn from these cases is the frequent occurrence of pneumonitis, often latent, after reaction. This circumstance would have been overlooked, unless examinations after death had been carefully made in the parts not suspected, as well as in those which had been. They may still pass unnoticed during life, unless we employ percussion and auscultation in those cases in which reaction is not followed promptly by convalescence.

“That no one be unduly discouraged by these and similar reports of the failure of remedies in the cholera hospitals of Europe and this country, I wish to avail myself of the opportunity to add a few remarks on the treatment. The English practitioners who became familiar with this disease in India, have given more en-

“ April 6th, 8 A.M. Now complains of great exhaustion; face violet and cold; lips of a deep violet, almost black; eyes hollow and encircled by a dark ring; conjunctivæ injected; pupils natural; feet and legs of a deep violet; skin of arms and thighs covered with violet spots; feet warmed by a metallic ball; says he does not feel cold. Tongue violet, cold, moist with a whitish yellow coat; no bad taste in mouth; no nausea; no vomiting; thirst not urgent; no pain

encouraging accounts of the effects of remedies than any physicians have done from their own experience in this country or in Europe. Whence the difference? Has the disease really been more severe; or has it changed its character since it left the warm country in which it commenced its career? Both these things may be true, but they have not been shown to be so. If there be any difference, it certainly appears to me that the disease has more rarely been short and rapid in its course since it entered Europe than it was in India.

“ Were the physicians, who practised in India, deceived? May it not be that their success occurred only at times and in places, where and when the disease had become comparatively mild? A fair examination of their testimony does not show this to be true. That the disease did vary in severity and fatality at different places and in different seasons, they were fully aware. If they were deceived, it was not after having witnessed the disease for a few weeks only, but after abundant experience for three or more years, and after having had time to review their practice calmly.

“ But why then has not this mode of treatment succeeded in Europe and this country, as well as in India? Before answering this question, I must ask whether that mode has been thoroughly and sufficiently tried. It is too common an error, in philosophical investigations, to attempt to explain facts before the facts are ascertained. Let us first ask, then, Has the fact been ascertained that this treatment has been tried and has failed? It may be that it has. I have not read everything which has been written on the subject, and much may have been done, of which

in abdomen, even on pressure; no stool for two or three hours. Pulse 84, thread-like, uniform; says he has passed urine at his stools; resp. 48, costal. Aphony since midnight. Cramps, now very severe, by far the predominant symptom at present.

“A vein was immediately opened, much against the will of the patient, and blood to the amount of $\bar{3}$ vi. only could be obtained; this was black and curdled

no account has been published. But I have not seen any statement showing an extensive and adequate trial of the treatment referred to, and of the failure of it. It therefore seems to me that the mode of treatment, here referred to, claims a trial among us, *on the ground of experience* more than any other. If it should fail, after a sufficient and fair trial, I should regret it; but I should feel no reproach for having promoted or practised it, as there is good reason for the experiment.

“It is plain that the following cases do not present many instances of the Anglo-Indian practice. There were good reasons for this. The first object was to gain a knowledge of the disease. Besides, a larger proportion of the cases were in an advanced stage and of a desperate character. Other good reasons might also occur to the learned physicians who had charge of the cases. And indeed it must be allowed that the French are not very ready to adopt the energetic practice, so common in the treatment of acute disease among English and American physicians.

“Further, in most diseases, and in this especially, hospitals give an opportunity for learning their natural history; and sometimes for a more thorough trial of remedies than can be made in private practice. But, in general, the ill success of remedies in acute diseases, when employed in hospitals, should not be admitted as evidence that the same treatment would fail in private practice. For this an important reason is, that hospital patients are mostly persons impaired in constitution by the miseries of poverty, or the greater miseries of intemperance and debauchery. But a still more important reason is, that the hospital patient rarely comes under treatment until an advanced stage of disease.

only, but did not coagulate. The cramps continued severe during the bleeding.

R Aq. Menth. V. ℥ iv.
 Æther. Sulphur. ℥ i.
 Ammon. Liquid. gtts. xx.
 Camphor. . . gr. xx. M.
 Take half a spoonful every hour.

R Hydr. Sub. Mur. gr. xxiv. to be taken in two powders,
 at half an hour's interval.
 Friction with oil of turpentine to limbs.
 Sinapism to abdomen. Lemonade.

In the cholera, more than any other acute disease, this circumstance is alone decisive as to the result of treatment.

“In respect to the remedies for cholera, and likewise as to other points, my son refers me to a paper which is, or is soon to be published by Dr. Smith, of N. Carolina. He was officially attached to the Necker Hospital in Paris during the prevalence of the cholera in that city. He had there ample opportunities for gaining accurate information, ‘of which he well knew how to avail himself, and much may be anticipated from him.’

“At the Hospital La Pitié it was my son's good fortune to be associated in the study of cholera with Dr. Gerhard and Dr. Pennoek, both of Philadelphia. A similarity in their pursuits tends to bind together, as well as to bring together, young men of the same country, when absent from their common home. But the professional zeal and professional acquirements, as well as the amiable characters of the gentlemen just mentioned, had engaged my son's respect and esteem, in addition to the causes just mentioned; and the union among them was more strongly cemented, when they remained together exposed to the dangers of a cruel disease, with the common object of studying that disease. Hence it was my son's request, that I should not publish the following sheets without referring to them in terms expressive of his feelings and sentiments towards them. It may perhaps be hoped that they will add to these gleanings, from the ample stores to which they had access.

“In stating that the materials of this volume are derived from

“ The patient died at half-past 10 A.M. of the same day, before any of the above remedies could be administered. We shall again refer to this case, in connexion with three or four others, to show the inutility of an attempt to obtain blood, while the cold stage is so strongly marked, without previous stimulation, external or internal, or both.

MM. Andral and Louis, consisting of the observations they pointed out to their pupils at the bed-side and in the dissecting-room, it will not be imagined that I would represent those distinguished pathologists as responsible for the accuracy and fidelity of the observations. It is enough that they permitted the publication of them, should that be deemed expedient, in this country. For this kindness my son begs me to express his best thanks. His deep sense of gratitude to these gentlemen seems to be more than he knows how to express ; as their condescension and goodness to him were equalled only by the invaluable instructions they gave him. He had no claim upon them, except a desire for knowledge and a love of truth. But indeed this love is always a bond of union among those who possess it, allying the most exalted to the more humble.

“ May I be permitted, thus publicly, to express how fully my own opinion accords with his in regard to the highly valuable labours of these two learned and talented physicians, and how strongly I sympathize with him in the feeling of deep obligation for the kindness they manifested toward him. By parents it will be readily understood how surely the services rendered to a son, especially in a foreign land, will beget the lively gratitude of a father.”

“ Evidences of inexperience in the art of authorship will be sufficiently obvious, perhaps, in the following pages. I have thought, however, that these would not be very severely judged. At any rate, I have chosen to leave them as they are. Some verbal errors and some expressions which might be thought equivocal, obviously from haste, I thought it right to correct.

“ CASE II. *St. Paul, 22.—Male Ward.—Under care of M. Louis.*

“Lassu, æt. 60, hostler, entered April 24th, 8 A.M., well nourished, sleeps in a comfortable stable, and is guilty of no excesses; enjoys perfect health; was well yesterday, having had two or three somewhat liquid stools only for the two last days, which he says is habitual. He slept well during last night and got up this morning at three o'clock, feeling perfectly well, to feed his horses as usual. Between four and five o'clock he was taken with diarrhœa, and has already had ten stools without colic; cramps commenced soon after in the lower extremities, and have been almost constant since; began to vomit on coming to the hospital; matter vomited is insipid; no sensation of cold or heat at the debut, nor sweat nor urine since; the voice became instantly feeble; neither headache nor dyspnœa, and thirst within the last half-hour only. He was brought to the hospital on a litter.

“ April 24th, 8½ A.M. Face moderately violet,

Two of the eases (LV. and LVI.) are incomplete. I should have omitted these, were it not that the tables would not then accord with the eases as to number. The result was not fatal in either of these two eases, as appears by a comparison of the eases with the tables. The word *aphony* is frequently used. It is important to note, that it is not used in its most strict sense. When it is not said to be perfect, it is meant to imply only that the patient could not speak above a whisper, or only in a low whining voice, peculiar to cholera patients.

“ *Boston, August 22nd, 1832.*”

cool, especially the nose; eyes hollow; folds of the skin of the neck very slowly effaced after pinching; fore-arms and trunk of natural temperature; legs cold; skin of the upper part of chest and neck somewhat livid and cool. Tongue cool and very livid; thirst not very urgent; no pain in any part of the abdomen even on pressure; has vomited since entrance a clear, colourless liquid, in which float numerous little flakes of no very regular form; slight colic occasionally. Pulse 88, very small and contracted, but regular; veins of the fore-arms quite apparent from their colour, but not at all prominent. Respiration 36, rather high, but no feeling of dyspnœa. No headach; drowsiness; senses good; intelligence perfect; voice very hoarse; cramps now in all the extremities; prostration not extreme.

“ Lemonade. Common enema $\frac{3}{4}$ iv., with laudanum $\frac{3}{4}$ ss., to be given every three hours.

“ Friction to the lower extremities.

“ April 24th, 11 A.M. Two enemata have been given. Now chin very blue; indifference to drink; no vomiting nor stool since enemata:—complains of oppression at the epigastrium; pulse scarcely perceptible. Dozing, from which he is roused by the cramp.

“ Frequent frictions. Sinapisms to the legs.

“ April 24th, 4 P.M. Deep plumbago colour of whole surface; incomplete loss of sensation and intelligence, the patient seeming to understand the questions put to him, though he can make no reply by either words

or signs; fore-arms rather cold and covered with sweat; the radial pulse is still perceptible, but very feeble and frequent; carotids also beat feebly; eyelids half open, motionless; eyes also motionless in their orbits, much more sunken than this morning, brilliant, but without expression; mouth half open. Respiration 32, high, noisy.

“Died an hour afterwards.

“Autopsy, April 25th, 9 A.M., sixteen hours after death.

“*External Appearances.* Skeleton rather large; emaciation not great; livid spots upon the lower extremities, the face and the head, which is bald; abdomen not completely cold; limbs extremely rigid; muscles red, pretty large.

“*Abdomen.* Stomach rather larger than common; contains a considerable quantity of a greyish somewhat thick fluid, in which are floating numerous flakes of mucus, likewise greyish. Internal aspect of the stomach greyish and of a very slight livid pink, with some spots of a vermilion colour on its anterior face, near the cardia, which consist of a number of little red points more or less confluent; mucous membrane of a natural velvet appearance along the small curvature and in the neighbouring parts for four or five inches; elsewhere it is granulated (*mamelonnée*), especially near the large curvature and in the great cul-de-sac; mucous membrane of good thickness every-

where, giving a strip* of two to four lines in the great cul-de-sac, of six to eight along the large curvature, and twelve or more along the small; but very slightly injected in its own substance; the sub-mucous cellular tissue being more so.

Small Intestines. Somewhat distended throughout; of a whitish aspect externally with streaks or lines of a livid lilac colour, which seemed to be owing to enlarged vascular branches, distended by a little gas and a great quantity of an opaque, as if milky, liquid of a whitish grey colour; at first rather thick, but becoming less so towards the cæcum, where it is likewise most abundant; this liquid contains numerous white filaments, either separate or united, forming a hairy appearance in some places; there is no green fluid in any part of this intestine; there is likewise, besides the first-mentioned fluid, a considerable quantity of light yellow mucus, which remains adherent to the first half of the intestine, and exists in smaller quantity below; it is, however, easily raised from the internal surface, which is of a greyish pink colour, becoming less pink towards the lower part of the organ. The mucous membrane is everywhere white in its own substance, except at intervals where it is slightly injected; sub-mucous tissue more injected.

* *i. e.* an incision being made in the membrane, it is seized by the cut edge and a portion is stripped off, showing, by its extent, the consistence of the membrane and its adhesion to the subjacent tissue.

Mucous membrane of its natural thickness, being rather thicker in the jejunum than in the ileum, and perhaps twice as thick in the duodenum; giving a strip of two to five lines in the jejunum, of five to ten below, increasing towards the end of the ileum. Brunner's glands in the last half of the ileum, very distant from each other, and at first as small as a grain of mustard-seed, in the last three feet more nearly approached to each other, and as large as millet-seed. Patches of Peyer's glands seen through the whole extent of the ileum, some of them projecting slightly, but distinguished only by the absence of the *valvulæ conniventes*, and some of them by their greyish points; natural. *Mesenteric glands* small not livid.

Large Intestines.—Rather large, containing a considerable quantity of a yellowish liquid, which resembles whey in its appearance, and in the two last feet has the aspect and consistence of pus. Internal surface everywhere pale, except a slight lilac shade in some points. Mucous membrane of its ordinary thickness, yielding a strip of two to four lines in the *cæcum*, about the same in the ascending and transverse colon, and from three to six below. A few glands are seen of half a line in breadth in the two last feet of the intestine.

“*Liver* of a good size, rather pale, finely granulated; containing a moderate quantity of blood and rather more easily penetrated than common. The gall-bladder contains a moderate quantity of a greenish liquid which is not very fluid.

“ *Spleen* rather large; of a somewhat deep red colour, containing several small cysts from half to a whole line in diameter, which are very hard, and contain a hard cretaceous material.

“ *Kidneys* of their natural size and colour. *Bladder* of the size of a pear, containing about a spoonful of a greyish yellow liquid; mucous membrane healthy with some few points of vascular injection.

“ *Thorax*. *Pericardium* healthy, contains no serous fluid. *Heart*: left ventricle pitchy externally; its walls are at least eight lines thick, and its cavity likewise, as well as that of the right, rather larger than usual; it contains much black blood, but no fibrinous coagula. *Aorta* contains liquid black blood without coagula.

“ *Lungs*. *Left* universally adherent to the pleura; upper lobe light, of a bright red internally, excepting some black spots, at which the tissue of the lung is not evidently more dense than elsewhere; lower lobe heavier than upper, of a blackish red in its half nearest to the division between the two, especially behind, without any appearance of granules, containing a considerable quantity of blood mixed with small bubbles of air; nothing else peculiar. *Right* not at all adherent; upper and middle lobes less red than upper lobe of left, but having like that some black spots upon its surface; lower lobe heavier, but less so than that of left, having posteriorly for the depth of ten or fifteen lines a black red colour, not granulated, but circumscribed and strongly contrasting with the

neighbouring red tissue; this dark portion of the lungs is easily penetrated by the finger, especially where it is most dense; the blood is easily pressed from it, and after this pressure the cohesion of the pulmonary tissue is the same as in the healthy portions.

“*Nervous System.* Bones of cranium rather thick; infiltration under the arachnoid of a considerable quantity of a livid reddish liquid. *Cerebrum* rather small, quite moist; cortical substance of a deeper colour than natural, greyish; whole substance of good consistence; white substance moderately injected; a spoonful and a half of reddish serous fluid in each lateral ventricle; corpora striata of rather a deeper colour than common; although its cohesion is good, yet the brain is a little flaccid. Pons Varolii natural; cortical substance of the cerebellum of a livid pink tinge; a little red serous fluid in the occipital fossæ.

“*Spinal Marrow.* The vessels covering its surface are somewhat injected; otherwise its colour and consistence are natural. The principal nerves of the upper and lower extremities are of their ordinary colour and consistence.

“*Superior cervical Ganglia* an inch long and a line broad; of a pale whitish grey, not far separated from the middle ganglia, which are but half as large; both of them firm and natural.

“*Par Vagum* natural, having some reddish lines on its surface and in the intervals of its fibres.

“*Semilunar Ganglion* greyish and reddish, about a line in thickness and very firm.

“I did not see the case just related. It occurred after I left Paris, and the notes of it were sent me by my friend M. Maunoir, as affording evidence that although the epidemic influence had greatly diminished, considered with respect to the numbers attacked with the disease, it yet remained in all its early violence so far as may be judged by the severity of its effects upon one individual.

I think that one can scarcely hesitate to consider the contents of the large intestines and the condition of its mucous membrane as undeniable evidences of inflammation, to say nothing of the stomach and small intestines.

“The morbid appearance of the lung, so carefully described by Louis, I presume to be an apoplexy of this organ. It did not exist to a very great extent, however.”

THE TOOTING MASSACRE.

I EXTRACT from the *Evening Mail* of Monday, January 8th, the following, from the *Observer*:—

“The fatality amongst the pauper children of the metropolitan parishes in the Tooting Asylum, is the most melancholy and startling of any that has occurred since the apprehension of the cholera has been first heard of. Out of fourteen hundred children, fifty-nine have already died in the course of a week, and yesterday the disease was making more fearful progress than on any day since its first appearance. The sufferings of the poor children are described as most affecting; four additional medical men were sent down on Friday evening. Dr. Grainger, who had returned from Gascon, was sent down on Friday, and again yesterday morning, by the Board of Health, and remained all the day pursuing his investigations.

“It appears that this asylum is in the centre of the crowded village of Tooting, and was the receptacle of fourteen hundred or fifteen hundred children, from two to fifteen years of age; that Mr. Drouet occupies altogether, including fields, which are appropriated, during the proper season, to agricultural purposes,

fifty-two acres of ground, about one eighth of which is appropriated to the buildings and grounds of the asylum—the elder girls' dormitories are situated in two old family mansions facing the main road in the village of Lower Tooting, a portion of which is occupied by Mr. Drouet himself, and his principal officers; that portion of the establishment appropriated to the boys, consists of a number of detached out-buildings, extending on the right or north-eastern side, about half way down, and on the left or western side, the entire length of the play-ground. Beyond them, on the same side, is a range of cottages, used as dormitories for the elder boys, which from their extraordinary position over a stagnant ditch, passing along the end of the grounds, and which will be hereafter more minutely referred to, are considered as most unhealthy; the detached buildings in the yard consist of seven distinct compartments, each compartment on the ground floor being fifty feet long, ten and a half feet high, and twenty-four feet in width, and over them are dormitories of the same dimensions for the smaller children; the cottage rooms referred to above, in which the larger boys sleep, are a range of buildings one hundred and fifty feet in length; the boys' school-room is ninety-four feet by twenty-four feet, and the girls' school-room of similar dimensions, the average number attending each school-room being from five hundred to six hundred daily.

“ Having completed this part of his examination, Mr. Grainger proceeded to inspect the various ditches and

drains in the vicinity of the establishment, and was accompanied by the Messrs. Chapman, late surgeons to the asylum; the Rev. Dr. Ford, Mr. Livesy, and a deputation from the gentry and inhabitants of Lower Tooting; by the authorities of Streatham parish, which closely adjoins; Mr. Baker and Mr. Hethrington, directors of the poor; and Mr. H. C. Robinson, medical officer of St. Pancras, and a number of other medical and scientific gentlemen. On arriving at the end of Mr. Drouet's grounds, in Garret-lane, the attention of the Inspector was particularly directed to the position of the cottage sleeping apartments, built over the ditch which formerly ran from Tooting to Wandsworth, but which now has been turned, passing in a north-easterly direction, towards the Surrey County Lunatic Asylum. After passing along the end of the Asylum grounds for a short distance, this ditch becomes considerably wider, and again returns towards Tooting, abutting on the eastern side of the Asylum, and, according to the statement of the Surveyor of the Board of Health, who accompanied Mr. Grainger, but three hundred and forty-nine feet from the centre of the main building of the institution. In answer to a question put by the Inspector, Mr. R. Drouet stated that this ditch had been cleaned about six weeks back, by a number of the larger boys and some men, and the matter it contained had been deposited on the bank, in order to be used as manure for the adjoining land.

“ At the request of the Rev. Dr. Lord, the attention

of the Inspector was next directed to another stagnant and filthy ditch, of extraordinary dimensions, in the adjoining field, belonging to Mr. Rawlings. This ditch, which is situate in a north-easterly direction, between Mr. Drouet's establishment, it appears, is connected with a stupendous tank, into which all the refuse of the Surrey Lunatic Asylum, situate at a distance of about a quarter of a mile, deposits itself. The ditch is about three feet deep, and from eighteen to twenty feet wide; and, on the approach of the party, the stagnant filth it contained was about an inch and a half, or two inches from the surface, and emitted a most offensive odour. Passing to the northern side of this field, it was found that this ditch was dammed up, for the express purpose of collecting filth, in order to manure Mr. Rawlings' grounds."

For this most valuable statistical extract, I am indebted to the *Times* of Monday, January 8th:—"Mr. Grainger very properly observed, that though the strict injunctions of the Board of Health were that the contents of these ditches should be forthwith removed, and for that purpose a large number of men, "about fifty navvies, in their jack-boots," had been sent down from London, yet, on viewing the place, and maturely considering the matter, he had come to the conclusion, that under existing circumstances, especially whilst there were any children remaining at Mr. Drouet's establishment, it would be both 'dangerous to remove the filth, and dangerous to let it remain.' From what he had seen, "he had no doubt

there was no good fall for the water, and that therefore the safest course to adopt would be to effect the removal of the contents of the ditches by flushing, and in his opinion that ought to be done immediately.

“The Rev. Dr. Lord said, The whole of the water used in Tooting was produced by Artesian wells, and he was sure, so deeply did the inhabitants feel upon this subject, that they would place the whole of the water-power of the village at the disposal of the Board of Health for that purpose; indeed, he and Mr. Livesy attended as a deputation from the principal inhabitants on the subject. At the time he made this statement, he begged to add, on the part of the inhabitants of Tooting, that they had the highest opinion of Mr. Drouet, and considered his conduct to the children under his care kind in the extreme. They had no desire to do him the slightest injury, and he was instructed to say, that the inhabitants of Tooting, as a body, would cheerfully contribute their share towards establishing a new asylum for Mr. Drouet in a proper locality.

“Mr. J. W. Kite said, He was the medical officer of Mr. Drouet’s establishment. The symptoms which first made their appearance were those of sudden sickness and diarrhœa. There was an absence of the usual premonitory symptoms attendant upon cholera. The cases were now less numerous and less severe than at the outset. As the cases occurred, all the various remedies were put into use—such as chloroform, carbonic acid, ether, calomel and opium, camphor, am-

monia, wine, brandy, and various other stimulants. The application of stimulants and artificial heat had been found most effective. Mr. Kite adheres to his opinion, and which, he states, is concurred in by all medical men who have visited and inspected the cases, that the epidemic is cholera arising from the effects of atmospheric poison."

"Mr. W. H. Popham, surgeon, of Judd-street, Brunswick-square, stated that he was one of the district medical officers of the parish of St. Pancras, and that by the direction of the directors of the poor of St. Pancras, he had come down to the asylum, in company with Mr. Gordon Bailey, another surgeon, to assist in the cases requiring medical treatment. On entering the affected wards, he found one hundred and sixty children labouring under cholera, and in some instances they were lying four or five in a bed. His first step was to see to the thinning the patients, as far as possible; but eight died during the night, and three others during the morning. He found calomel and opium the most effectual remedy. If the state of collapse had arrived, the case was hopeless. As to the actual origin of the disease in the asylum, he could form no idea.

"Mr. Bailey corroborated the main points of Mr. Popham's statement.

"Mr. H. C. Robinson, surgeon of the Workhouse of St. Pancras, was of opinion that the nature of the food and the scanty clothing of the children were the predisposing causes; but that the malaria from the

ditches which had been viewed by the Inspector, blown over towards the asylum by a north-easterly wind, was the more immediate cause of the outbreak.

“Mr. Baker, and other medical gentlemen, also expressed themselves as agreeing in opinion with Mr. Robinson. Dr. Bermingham, who had had considerable practice in cholera in India, considered the cases identical with Asiatic cholera.

“Sunday Evening, 7th inst.—Twelve more cases of cholera have occurred at Mr. Drouet’s establishment to-day, and though the disease does not exhibit the malignant form it assumed at first, fourteen more of the children have died. It is considered singular that the disease, if owing to atmospheric influences, should have been confined to this asylum, and it is understood that further inquiries are being made with respect to the dietary.

“We regret to hear further reports of cholera appearing among the children removed to London: it is said that the disease has broken out among the children removed to Chelsea, Wandsworth, Newington, and Holborn; the Holborn children are at the Royal Free Hospital, and it is stated that three of them have died.”

I consider this account of the “sudden” and “extraordinary” outbreak of cholera at the Juvenile Poor Establishment at Tooting at once most interesting and deplorable, and cannot but feel, and express, too, my deep debt of gratitude to the *Observer* for having published, and the *Times* for having copied it at full length. It is a most valuable statistical

record, replete with instruction and warning. Sixty deaths out of 1400 children in one week, and out of 240 cases (I state merely round numbers); this report is well calculated to sound alarm; and yet when we pause and take time to reflect, we discover that, after all, we have not much to wonder at. For instance, though it appears at first sight very alarming, that sixty deaths should have occurred in one week, yet when we reflect that these sixty were from among two hundred and forty, we then perceive that the proportion of deaths to cases was in reality very small, and the real cause of surprise is, that so very few deaths are reported, where such an epidemic as Asiatic cholera made an invasion. The proportion is exactly one death out of every four cases, which is the smallest I ever heard of in any locality where cholera pays a first visit. It is a fact notorious to every man of experience in cholera, that at its first invasion in any place, cholera prostrates most victims, and in the shortest space of time; when in Townsend-street, I knew well, whenever it changed its locality, we might expect an influx, for a time, of very bad cases, and we were sure to have them. This, I think, can be easily explained: the epidemic pestilence of cholera, as might be expected, takes immediate effect on the weakest and worst constitutions, and of course they are unable to make any fight, and sink at once; it then assails those next in order, and so on in succession, until at last none remain but those whose constitutional powers altogether resist its influence; and

thus we are apt to think the epidemic is becoming milder, whereas, in reality, it remains the same, but the constitutions of those who remain differ totally, perhaps, from those of its first victims. When this is taken into account, it is to me, at least, only wonderful how, under the very peculiar circumstances of the Tooting Juvenile Institution, so small a proportion of those attacked sank under the malady. What are the admitted, ascertained, and undeniable facts? It appears that this asylum is in the centre of the crowded village of Tooting, and was the receptacle of from 1400 to 1500 children from two to fifteen years, a most critical period of life. These children, except during play-hours and meals, were confined to their school-rooms by day, and dormitories by night. Let us now examine the dimensions of the school-rooms: the boys' school-room was 94 feet by 24—this, by an easy calculation, gives us an area of $250\frac{2}{3}$ square yards for 750 children. Let us imagine, now, 750 children congregated within $250\frac{2}{3}$ square yards, and we can easily conclude to what a state of impurity the purest air must be soon reduced. We have in this calculation made no allowance for the necessary deduction from these $250\frac{2}{3}$ square yards to be made for tables, forms, stools, benches, &c., teachers, male and female, of which no inconsiderable number could be required for 750 children, not of the most formed habits and tastes. In this calculation I have supposed the contained air to be a pure sample; I regret to be obliged to admit that in this I have been knowingly and most

miserably incorrect. On this head, I have only to refer the reader to the statistical facts already mentioned, especially the statement of the Surveyor of the Board of Health who accompanied Mr. Grainger, which was that, in addition to the fatal mistake of having the boys' sleeping apartments built *over the ditch*, that sink of iniquity and source of malaria, this said never-failing fountain was situate at only 349 feet, exactly 116 yards and one foot, from the centre of the main building of the institution. How am I to comment on this sad affair? Were such an occurrence to have taken place in Ireland, I have no doubt we should hear enough about it in the enlightened comments of our anti-Irish journalists: the fact is, it requires no comment; it speaks for itself; that the grossest omission existed is undeniable: it is well if there were not also the most unpardonable commission. We are not told who this Mr. Rawlings is, or why he was permitted to dam up this ditch for the express purpose of collecting filth in order to manure his grounds. What were the Officers of Health about? What were the Poor-law Guardians about? In England, a vagrant act exists, and paupers are compelled to enter a poor-house. When a father of a family enters, so must his wife and children; for the sake of order and classification, the husband must be separated from the wife, and the children from their parents. The Tooting establishment was instituted for the express purpose of having the children from the several metropolitan unions located there,

and of course properly attended to; I say of course, because they become, *pro tempore*, the children and property of the Poor-law Guardians: their parents were obliged, *by law*, to resign all control over them into the hands of the Poor-law Guardians. The parents were merely allowed about once a month to visit them, and, strange to say, in the instances recorded, they were not allowed to see them except in the presence of some one or more of the officers of the establishment. Was this precaution taken *to muzzle* the child, lest it should complain to the parent that it did not get enough to eat? &c. Now this arrangement was all very good, provided the Guardians took care to fulfil their obligations. Was this done by the Guardians? We shall see. The Guardians contracted with Mr. Drouet for the keeping and caring of these fourteen or fifteen hundred children. I would venture to assert, that had these same *Guardians* (what a gross misnomer!) contracted for the keeping of so many pigs, they would have taken very good care to ascertain that their sties were properly attended to; cleaned out at proper intervals, and duly ventilated, and the animals themselves driven out and exercised. They would probably, too, have seen that the pigs were not always kept on the same routine of feeding; for instance, had the animals been attacked with what is technically termed "a scouring," I doubt if even "pea-soup" would have been deemed fit and appropriate food for them even three times a week, and this, too, "defective

in quality." The clerk of the Holborn Board of Guardians said, "that he had in his hands a letter of the Poor Law Commissioners, dated 1847, expressing their approval of the scheme of the Guardians for removing the children to Tooting. The Guardians paid a monthly visit to Mr. Drouet's establishment to ascertain the state of the children, and the result of their observations was communicated to the Commissioners. So the Commissioners *sanctioned* the "scheme" of the Guardians, and the Guardians discharged their responsibility by paying *a monthly visit*. It might be well designated "a scheme," a low, despicable, culpable "scheme," criminal in its contrivance, and fatal to the poor in its consequences. Well might it be said of it and its authors,

"Quicquid delirant *reges* plectuntur *Achivi*."

Let us examine for a moment the Act of Parliament which *authorizes* and *empowers*, and at the same time *nullifies* the powers of the General Board of Health. According to Mr. Grainger, under the provisions of the Nuisances Removal and Diseases Prevention Act, the powers of the General Board are limited "to the issuing of regulations, and instituting inquiries, no authority existing for *enforcing* any measures which, in consequence of this investigation, might appear to the General Board to be desirable." I have often heard it said, "A man might drive a coach and four through an Act of Parliament," and certainly, if this be the way in which England and the English

legislate for Ireland and the Irish, the sooner they give us back our Parliament in College Green, the better. An Act of Parliament *emasculated* and *powerless* !

Mr. Grainger here said, " he might explain, for the information of the Jury, that the General Board of Health acted under the authority of *two* Acts of Parliament. The *first* was the Public Health Act, which gave the General Board of Health very considerable powers in all parts of England, except London, and a circle of ten or twelve miles round the metropolis. Mr. Drouet's establishment, therefore, did not come under the operation of that Act of Parliament. There was another measure, the Nuisances Prevention Act, which gave the Board very limited powers, although it conferred considerable powers with regard to the removal of nuisances, and it was under this act that the Board acted. That act, however, limited their interference to recommendations, and the institution of inquiries." It is perfectly plain, that in this explanation, Mr. Grainger endeavours to palliate (as far as in him lies,) the conduct of the General Board of Health, but like many an over-zealous advocate, he contradicts himself. He states in one place that the Nuisances Prevention Act gave the Board of Health " very limited" powers, " although" " it conferred considerable powers with regard to the removal of nuisances." And he states, in another, " That Act, (Nuisances Prevention,) however, limited their interference to recommendations, and the

institution of inquiries." Let us now hear what the Coroner, Mr. Wakley, replied to all this.

Mr. Wakley observed, "that he had seen it stated, that the Poor Law Commissioners had no authority over Mr. Drouet's establishment. Now, if it should appear that these children had lost their lives through any neglect, or mismanagement, a most important question would arise, as to where the responsibility lay. He believed it would be proved that the children had been removed from the Holborn Union, which was under the authority of the Poor Law Commissioners, to an establishment in the Wandsworth Union, which was also under their authority. He could not understand, therefore, how it could be stated that the Commissioners had no power over this establishment, especially as the 15th section of the Poor Law Act of 1834 provided that the Commissioners should, from time to time, make and issue regulations for the management of the poor, for the government of workhouses, for the education of children therein, and the management of parish poor children. He would think it his duty, if it should be deemed necessary, to summon Mr. Hall, or one of the Poor-Law Commissioners, to attend the inquest, for the purpose of affording some explanation on this subject."

All honour to the Member for Finsbury, the independent, talented Mr. Wakley. Had we many like him in the House of Commons, times would be altered, and laws too. Why not summon Mr. Hall, or any one of

the Commissioners, and demand an explanation? It requires one, and I have no doubt whatever, that the matter rests in safe hands; that Mr. Wakley will sift it to the bottom in his place in Parliament, ay, and

“ Will *speak to it*, though hell itself should gape,
And bid him *hold his peace!*”

What shall I now say to the frightful details given in Mr. Grainger's report! Shall I enter into an enumeration of its disgusting items? Let Humanity, let Decency throw its mantle over its hideous particulars, and let us content ourselves by asking the question, in that “rank sty, why wallowed” fourteen or fifteen hundred children of the poor?—the property and wards of the Poor-Law Commissioners and Guardians, regularly and duly consigned by an Act of Parliament!!!” One long room was erected in the immediate vicinity of a yard, in which a large number of animals, pigs, cows, horses, and poultry were kept!! When this building was erected, and before any children had been placed in it, Mr. Walter Chapman, then the professional medical adviser of Mr. Drouet, “expressed his opinion that the Commissioners of the Poor, or of the Board of Health, would insist on the removal of the pig-sties and animals if the children were to live there.” “Notwithstanding this representation, one hundred and fifty children were placed in this room. The present medical officer has also expressed to the proprietor his opinion, that the locality was not suitable. In consequence,

as it is believed, of these representations, some of the animals have been removed, but I saw a large number of poultry still in the yard, and some pigs also remain.” “The interests both of truth and humanity compel me to affirm, that no effort or attempt was made on the part of the proprietor to carry into execution some of the most essential of my recommendations given on Friday, the 5th of January, and which were capable of speedy execution.” “The proprietor was equally indifferent to the express order of the Poor Law Commissioners, Messrs. Tufnell and Hall, limiting the number of children, both in the school for boys and in that for girls. A most momentous point with such an over-crowded establishment.”

“I must also state, that the proprietor obstructed my inquiry, by sharply rebuking one of the undermasters, whom I was questioning respecting the prevalence of premonitory diarrhœa among the boys.”

I have now done with my extracts from *The Times* of Saturday, January 13th, and have again to express my thanks to its editor, for this his original publication. “*Fiat justitia, ruat cælum*” seems to be his motto—a noble one it is. What shall I, an humble chronicler of *The Times*, say by way of comment on all this? “The interests both of truth and humanity” compel me, at all events, to ask a few questions. When the Guardians, in 1847, concocted their “scheme,” (which “scheme” received the “expressed approval” of the Commissioners,) of contracting with

Mr. Drouet for the keeping of the children, was it for safe and proper keeping they contracted? If so, why did they not *see to it*, that safe and proper keeping was afforded? Was a monthly visit sufficient to ensure this? If the contractor, Mr. Drouet, grossly violated his contract, why was he not ignominiously ejected? Did the contractor enter into no bond to fulfil his contract? If so, why was not he, or his sureties, made responsible for his neglect of express orders? If a similar contract had been entered into for the keeping of Her Majesty's horses, would not the contractor have been compelled either to relinquish his contract, and pay the penalty of its violation, or to fulfil it to the letter? Why was not this done in the contract entered into for the keeping of Her Majesty's subjects of tender age? Is it because these subjects were poor?

“ Ah, little think the gay, licentious proud,
Whom pleasure, power, and affluence surround ;
They who their thoughtless hours in giddy mirth,
And wanton, often cruel riot waste ;
Ah, little think they, while they dance along,
How many feel, this very moment, death,
And all the sad varieties of pain !”

“ How many *Rachels* are now weeping for their children, and will not be comforted, because they are not?” Once more : With reference to the medical assistance for the sick, “ I found one resident medical officer, twenty-five years of age, a member of the College of Surgeons and Apothecaries' Hall, who had

been medical officer of the establishment for the last two months, having to take charge of 1370 children, at the remuneration of 50*l.* a-year, with board and lodging. This gentleman states, that he had visited the hulks at Woolwich, where he had seen some cases of cholera; and also that he had, in two previous situations, had the charge of pauper patients." A noble remuneration for a member of the Royal College of Surgeons, London! I should be curious to learn, from competent authority, what salary a land-steward generally receives from a nobleman of extensive landed property, and what, altogether (perquisites included), his post may be worth. I perceive, *inter alia*, that *chloroform* and *carbonic acid* were tried as remedies. I should be equally curious to learn upon *what* principle, or whether upon *any*. I have myself tried chloroform, in the County Hospital, Kilkenny, for the purpose of rendering a patient insensible while undergoing an operation for the removal of a cancerous tumour from the breast. This I did at her own express desire, but I shall be very cautious how I repeat the experiment. It certainly rendered her quite insensible to the pain of the operation, which only lasted a minute or two, but it also produced a deadly faintness, which lasted a long time, and required stimulants for its removal: but this was not all; after the necessary tying of arteries, and application of bandages had been completed, she was so faint, that it was deemed expedient to have her carried up to bed; and when after about an hour

had elapsed, (during which I fortunately remained in the hospital,) reaction set in, so also did hæmorrhage, from vessels which did not bleed during collapse; and the entire process of tying arteries and applying bandages had to be gone over again. Had she been without assistance, she would probably have bled to death. I am equally at a loss to conceive the *rationale* of administering *carbonic acid*! I should certainly augur more favourably of the exhibition of an atmosphere more than usually pure, and uncontaminated by carbon. I have this moment received *The Times* of Wednesday, January 24th, containing Mr. Wakley's charge, and the verdict of the jury. Mr. Wakley's charge is very different indeed from what I should have expected from a man of whom I had formed such a high opinion. To me, at least, judging from his words—

“He seemed for dignity composed, and high exploit,
But”

Mr. Wakley would seem to imitate Mr. Grainger's example—

“*Odi imitatores, servum pecus,*”

and bring off the Commissioners and Guardians scot-free; but he is very impartial, and very independent when dealing with the contractor, Mr. Drouet. I beg leave to tell the coroner, such conduct is most unworthy (to say the least of it) in a man sworn to administer justice impartially, and that such conduct

will not go down with Irishmen. I don't mean to absolve Mr. Drouet; far from it; but I maintain it, even in despite of Mr. Wakley, that the Commissioners and Guardians are highly criminal too. "The Guardians (he tells us) stood as legal parents of these unfortunate children." How pathetic! Yes, they did; and, as such, were bound by law to see to their proper keeping. The same law which authorized the Guardians to contract with Mr. Drouet, bound both the contracting persons and the contractors; the former to see that the contract was fulfilled, the latter to fulfil it. I've now done with the member for Finsbury, and shall leave him to his own reflections on his impartial administration of justice. I doubt not, however, that "*Magna est veritas, et prævalebit.*"

THE POOR-LAW COMMISSION AND THE TOOTING FARM.—From the *Times*, January 26, 1849.—To the Editor of the *Times*.—"A long mail journey took *Squeers* and his young martyrs to the place of his *farming occupations*." "I have looked into a topographical dictionary, and I find that Tooting is just seven miles S.S.W. from London: say, if you will, that the Drouet farm is ten miles from Somerset House. How are we to account for the fact, that, within that distance of the central Poor-Law authorities, 1400 pauper children could be stowed into such a place, and treated as they have been? and yet, that it was left to the milder agency of death in cholera guise to cause the exposure of all the horrid, bestial

neglect and tyranny to which the poor children were subjected."

"Signed, S. G. O."

The writer, evidently a man of no ordinary talents, insists on the necessity of parliamentary inquiry into the entire working of this *Tooting*, alias *Squeers' farm*. He alludes to the fact, that girls over the legal age of fifteen, were sent there, and retained, and that one Union removed its children in consequence of indecent assaults made by inmates upon pauper girls. He says he has good reason to believe, that evidence of an appalling character will be elicited, if proper and impartial scrutiny be instituted. And why should it not be instituted? Let every man lend his aid to insure it. For my part I shall certainly do so. I shall send a copy of this Treatise to each of my University Representatives, directing his especial attention to the entire of this Tooting massacre. Neither, I am certain, will despise the safety and cultivation of the morals of girls of fifteen years of age, and upwards, merely because they happen to be pauper girls, and not his own daughters, especially when he recollects that he represents an "*alma mater*" in parliament. He alludes also to a statement made, upon oath, at the coroner's inquest, namely, that when, upon one occasion, a boy went up to one of the keepers, named Brown, and asked to be let out of the garden, Brown knocked the boy's head against the wall, and cut it: upon which a stone-mason, who was at work, went up

to Brown, and knocked him down; and so delighted is he with this exhibition of manly feeling on the mason's part, that he undertakes, if any one will certify him of the fact, to send the mason a sovereign, "for this display of true English spirit." I give the writer every credit for possessing an honourable and manly spirit himself, but I beg to assure him, such a spirit is not confined to *the English*. I would venture to affirm, without any fear of contradiction, had *an Irishman* been present, he would, after having felled Brown to the ground, have kicked him into an *upright* position: I shan't add *again*, for in that, I am quite certain, he never stood previously.

February 15. — I am glad to perceive, by the *Saunders* of Wednesday, the 14th, that in the House of Commons, on Wednesday, the 12th, Mr. C. Lewis presented a petition against the present system of "pauper farming." "In reply to a question from Lord Drumlanrig, Mr. Baines said, the number of children at Tooting when cholera broke out in Mr. Drouet's establishment, was 1300, but, that the number now was only 223!" What! 223 unfortunate children still immured in the Augean stables? I should be curious to ascertain to which of the metropolitan Unions these children belong; or have the dykes and cesspools had the benefit "of flushing" from the "Artesian wells of Tooting," or have they been preserved as cold-baths for the Commissioners and Mr. Drouet? Indeed, to say the truth, I should

not be much surprised, if Mr. Drouet, had he a fair opportunity, were to give the coroner, Mr. Wakley, a shove into one of these refreshing baths, for having made a scape-goat of him, and having let off the Commissioners and Guardians scot-free. "*O tempora, O mores.*" The independent, impartial, immaculate member for Finsbury—one law for the rich man, and another for the poor, and this under an English Constitution, which boasts of equal laws and even-handed justice!! I shall take it as a favour, if either Mr. Hamilton, or Mr. Napier, when acknowledging the receipt of this Treatise, will inform me what salaries these worthy Commissioners receive for doing, worse than nothing. A pretty specimen this, of the well-working of those *vampires* of our vital fluids, the Poor Laws!!

CONCLUSION.

I MUST apologise for having so long postponed the publication, and protracted the conclusion of these, my observations on cholera. Many circumstances contributed to the former, over which I had no control, ill health and its concomitants. For the latter, my only plea is, the vagaries of an inexperienced hand. The reader must bear in mind that an untrained steed is apt to deviate from the course, and that experience alone teacheth. Yet, though this, my first attempt, should present very much the aspect of a "*rudis, indigestaque moles*," still, if in a vast deal of chaff, a few grains of sound corn may be found, I shall not have laboured in vain; but, like the poor widow, have "cast in my mite into the treasury" of medical knowledge.

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A. CANTUA

